APPLIED HARMONY

CAROLYN A. ALCHIN.

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Applied Harmony

A text-book for those who desire a better understanding of music and an increase in power of expression—either in performance or creative work.

— BY —

Carolyn A. Alchin

(1921)

Author of

"Tone Thinking and Ear Testing"

Price $2.25

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FOREWORD

The purpose of this book is to provide a course of study that will be simple, direct, and from the outset insure a musical understanding and mastery of the material of music; a course that will teach the *nature* of music, and through that, lessen the burden of rules and their long train of exceptions; a course that will cultivate the imagination with the technical development; that will awaken and increase a love and appreciation for the best in music; a course that will be *related to all branches of music education and of practical value* in every line of music study.

There is a constant appeal to the *ear* and *feeling*. Thought without feeling is too cold. Feeling without thought can not be intelligently expressed. The highest musicianship results from a union of thought and feeling. The late Judge Troward said: "Thought creates form, but it is feeling that gives vitality to thought. Thought without feeling may be constructive, but it can never be creative."*

Mozart said: "Melody is the essence of music." Since there is no melody without rhythm and harmonic regulation, *music*, then, *is the union of rhythm and tone*, and the intelligent study of music is a study of these relations.

Our first work in cultivating the feeling for relationship and its resultant qualities in key is through the principle of "Tonal Magnetism," a relationship that is the product of nature. From the relationship of tones in scale and tones in chord, we pass to the relationship of chords in key, their relationship to accent and rhythm, and the relationship of keys. *Rhythm is a vital factor in the selection of harmonies.*

The material is introduced progressively and in the order most frequently and naturally used. As each new factor is presented, the student is first made familiar with it by an abundance of excerpts from the works of the best composers—both old and new—from which one sees the various relations of the new material and the practical application of the few necessary rules that are given.

The *analysis* is *followed* by *synthesis* through patterns for keyboard work, the use of the new material in the harmonization of melodies, and lastly, original work embodying the new material. An ounce of application is worth a pound of theory.

The late Julius Klauser (to whom I am greatly indebted for his splendid instruction) first drew my attention to this principle of relationship and the importance of working from the melodic basis. In his book, "The Nature of Music," he says: "Melody is the direct reporter of fundamentals and chords. Fundamentals and chords are not reporters of melody, though they may suggest them. It is a psychological error to suppose that any beginner, however gifted, possesses the perceptive power to grasp the four-voice music-thought

*The Dore Lectures.

embodied in given basses. The impossible being demanded, the student's performance is necessarily mechanical and musically dead, since his musical faculties are not called into requisition. * * * Melody being the one simple and real fact in the beginner's inner consciousness and experience of music, it follows that the given melody is the one thing that his musical faculties can seize upon and be stirred by, the one thing that lies within his intellectual grasp and appreciation, the one thing that he appreciates and remembers as a whole, and in relation to which it is easy for him to add something else, since it explains the musical what, how and why of the addition. * * *

"Exercises in the given bass, owing to their arbitrary prescription of the order and arrangement of material, completely cut off the student from that independence of thought and judgment in the use and selection of chord-material which is so essential to its mastery. Given a melody to harmonize, the student sets out with the one thing he can mentally grasp; he perfectly comprehends the subject of his work and therefore also its object. Having a tangible subject he has a tangible object; his melody is his preceptor and guide in his choice of harmonies."

The melodies contained in this work have been chosen with a view of developing taste, also to provide every difficulty one is likely to meet in creative work. While original work is required at all stages of study, until a student can write as well or as correctly as the composers from whose works these melodies have been taken, it will be well to use more of the best models. Unless otherwise stated, the excerpts by Debussy are taken from the opera "Pelleas et Melisande." All of those by Elgar are taken from his "Dream of Gerontius."

It would be unreasonable to expect a work of this nature to be without defects. The perfect text-book will be written when the perfect teacher appears. There are some teachers who seem to think that they will be condemned for lack of originality if they use a text-book. As a result, there is much valuable time lost in dictation, and the student is at a disadvantage because he does not always remember what has been given to him in the all too brief lesson period. There is no new music material, but there are new combinations and rhythmic settings to be discovered. There are largely increasing numbers of people who want to compose, and their futile attempts bring us to a realization of the fact that they need training in *musical effects*, rather than arbitrary rules that make little or no appeal to the music sense. Broad, basic principles are needed at every step. A system that leaves nothing for the student to discover and no opportunity to exercise discrimination *does not educate.*

Experience has proven that with this system desired results are acquired in less time and without hampering the freedom of expression by the many prohibitions. Through the appeal to the nature of the music material, the affirmative principle prevails; the students become *discriminating musicians*, not mathematicians.

CAROLYN A. ALCHIN.

Los Angeles, California.

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CHAPTER I.

Intervals; Scales; Key Relationship.

1. **The study of music is the study of relationship.** Tones are related in scale and in chord; chords are related in key, and *all* are related to the accent.

2. **A Key** comprises all of the tones within the octave, with a definite relation to the first tone, which is called the *Keynote*, also the *Tonic*.

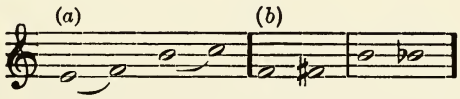
3. **A Scale** is a group of tones consecutively arranged according to a definite plan that establishes the key. Various kinds of scales have been used at different periods of time; this work will treat of two kinds only:—the generally accepted form known as the *Diatonic*, and the *Chromatic*.

4. **A Diatonic Scale** has but one tone on each degree of the staff, with *two modes*—major and minor. **A Chromatic Scale** includes every tone within the octave.

5. **An Interval** is the relation of two tones with respect to their distance or difference in pitch. The name of the interval is determined by the number of staff degrees represented, including both of the tones forming the interval, and they are always reckoned upwards unless otherwise stated. For example, from C to F is a fourth, C being counted as the first of the interval.

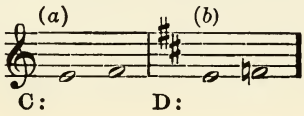
6. **A Semitone,** also called a *half step*, is the smallest interval used in notation. Semitones are written in two different ways:—on adjacent degrees of the staff, as E to F, and B to C. Ex. 1 (a) or by chromatic alteration (b).

Ex. 1



When the tones on adjacent degrees belong to a given diatonic scale, the interval is called a *diatonic semitone*, also a *small second*. Ex. 2 (a). If one of the two tones does not belong to a given diatonic scale, the interval is called a *chromatic semitone* (b).

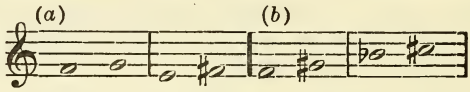
Ex. 2



7. **A Whole Step** or **Large Second** consists of two half steps. Ex. 3 (a).

An Augmented Second is a chromatic semitone *larger* than a whole step. In other words, three half steps within two degrees of the staff (b). Obviously, seconds must be on consecutive degrees.

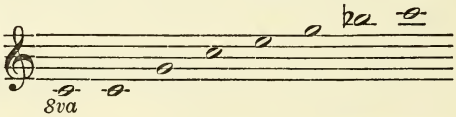
Ex. 3



Exhaustive work with intervals is given after the scales, so that they may be considered in their relation to the key.

8. Nature has given us the material of music in the *overtones*, also called the "Harmonic Series", some of which are given in the following example:*

Ex. 4



From the use of this material various scales have been constructed.

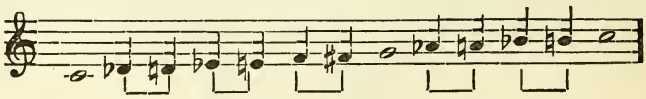
9. **Specific Modes of Scales.** From the material within the octave as found on the keyboard, selections have been made for various modes, all beginning with the same note, which is called the *Tonic*, and usually a common *Dominant*—the scale-5th. In the old Greek modes, with one exception, the Dominant is always a pure fifth above the Tonic.

10. **A Fifth** is said to be *pure* or *perfect* when the interval from a given tone consists of three large seconds and one small one, as from C to G of Ex. 4.

11. **A Fourth** is said to be *pure* or *perfect* when it includes one small second, as from G up to C.

12. For practical purposes, consider 1 and 5 as the fixed tones for any mode of scale. Of the remaining material within the octave, there are two different pitches of sound for each degree of the staff from which to select what is known as a diatonic scale.

Ex. 5



* Detailed knowledge of this may be found in scientific works. "The Science of Musical Sounds", by Dayton Miller, is an authentic work.

13. As each tone is the result of a definite number of vibrations, they should be named and considered individually, rather than in the familiar but incorrect terms, "raised" and "lowered" this or that. For example, one should say "small second", not "lowered second", and if syllables are used, the vowel sounds changed: Mi to Me (pronounced *may*), and the small six and seven *Le* and *Te*. Key relationship invests each tone with a specific quality which must be known and *felt* if one is to use the material of music in a musicianly way.

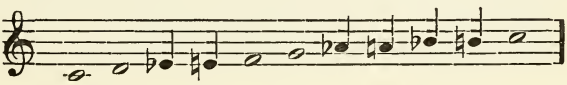
14. In their relation to Tonic, the large intervals are sometimes called *major*, and the small ones *minor*. Because it implies distance, the writer prefers the terms *large* and *small* when referring to intervals, and the terms *major* and *minor* for the collective or *modal effect* of a scale or chord. It is much easier and means more to those unfamiliar with other terminology.

15. An interval one small second or step *larger* than *pure* or *large* is said to be *augmented*, so F♯ in Ex. 5 is an augmented fourth above C.

16. The small second above Tonic is employed in one of the Greek modes, and the augmented-fourth in the Hungarian scale. As they will not be used here, they will not be discussed. As stated before, only the major and minor scales will be considered in this text.

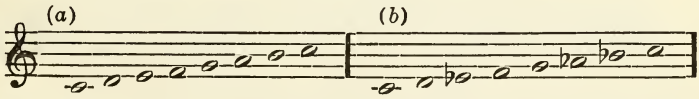
a. With the small-second and augmented-fourth eliminated, the available material for the major scale and the various forms of the minor mode are reduced to the following, with 1, 2, 4 and 5 necessarily common to both modes:

Ex. 6



17. The selection of the *large* and *pure* intervals of the key group form what is known as **the major scale**, Ex. 7, (*a*). The selection of the *small* and *pure* intervals (excepting the second) form what is known as the **original minor scale**, (*b*).

Ex. 7

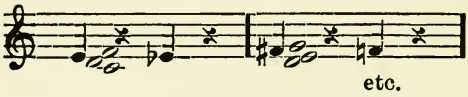


Where do small seconds occur in the major scale? In the minor?

18. If the scale is divided into two groups of four tones each, those groups are called **tetrachords**, 1 to 4 being the first tetrachord, 5 to 8 the second. Comparing the first tetrachords of the major and minor modes of a scale, one observes that the only distinction is in the scale-3rd. In referring to these types, for convenience they may be called major and minor tetrachords.

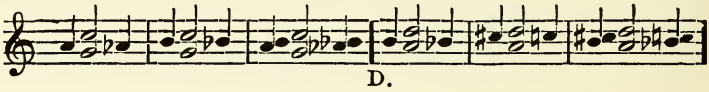
a. Before writing the scales, the student should find these two tetrachords on the keyboard, beginning with each letter as Tonic. To see it quickly, press down silently 1, 2 and 4 of the desired group, then large and small third alternately:

Ex. 8



b. Finding the two upper tetrachords on the keyboard, press down 5 and 8 of the scale, then large and small 6 or 7, as follows:

Ex. 9

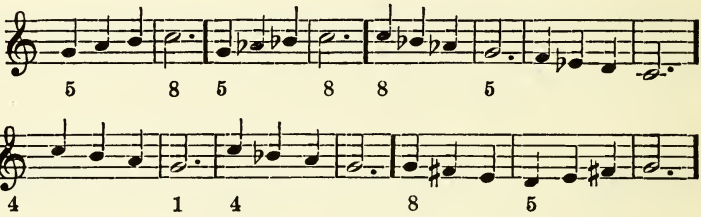


c. Comparing the two tetrachords of the major scale, one sees that they are identical, but those of the minor mode differ.

d. To distinguish it from the others, the upper tetrachord of the original form of the minor mode may be designated as the *original tetrachord.* This arrangement of material occurs in other ancient modes, but no other scale discussed in this text. These names for the different types of tetrachords are not given or known as technical terms, but just as a matter of convenience in referring to them.

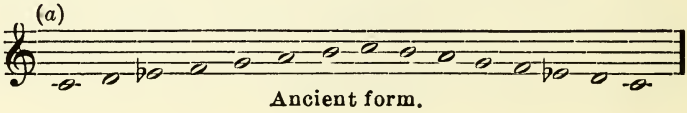
e. Beginning on various pitches, sing the three types with a neutral syllable, also Sol-Fa, scale degrees and letters:

Ex. 10

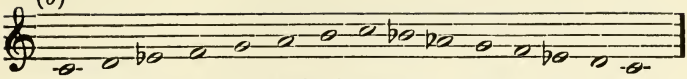


19. A form of the minor mode that came into use after the original form, was a combination of the latter and the major mode. Ex. 11, (a).

Ex. 11

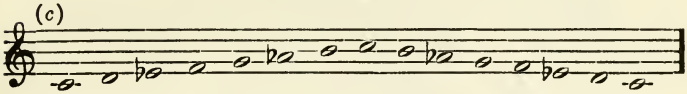


(*b*)



Melodic form.

(*c*)



Harmonic form.

20. There are two other forms of the minor mode—the **Melodic** and **Harmonic.** *Every form of the minor mode has the minor tetrachord for the first*—from 1 to 4.

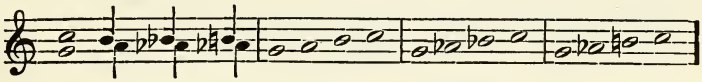
a. What is known as the **Melodic Minor** has the major tetrachord from 5 to 8 ascending, and the original tetrachord descending. Ex. 11, (b).

b. What is known as the **Harmonic** form is composed of the small 6th, and large 7th for the upper tetrachord, which may be called the *harmonic tetrachord*, because it distinguishes that form of the minor mode. Ex. 11, (c).

c. What is the interval between 6 and 7 of this form of the scale? Where do the small seconds occur?

d. Summarizing the three forms of the upper tetrachords, observe that in one, 6 and 7 are both large; in another, both small; and another, one small and one large. Find these on the keyboard:

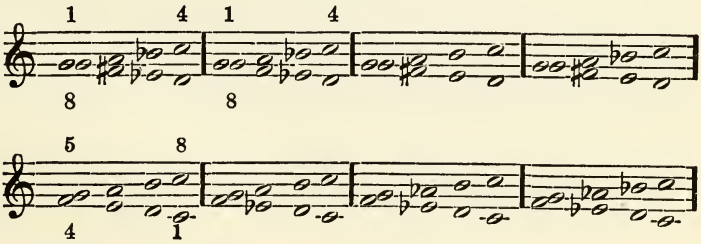
Ex. 12



Large, Small. One of each.

e. Other helpful summaries for the keyboard are as follows:

Ex. 13



As the form that preceded the melodic is seen less frequently than the others, a few excerpts are given here:

Bach: Bourrée.

Ex. 14

e:

Grieg.

8va

Schubert.

a:

Original Minor Ascending.

Bach.

c:

21. The *key-signature* of a major scale depends upon the number of sharps or flats necessary for its construction. F♯ is the first of the sharps. Moving in a circle of pure fifths, as at *a*, Ex. 15, one has a formula by which they may be remembered, also the *order* in which they occur. In writing the signature, the arrangement is such that they will all be kept on the staff, except G♯, which is very close. For the flat signatures, begin with B♭, which is the first one employed, and move *down* in a circle of fifths, as at *b*. This will also give the order in which they are used and placed on the staff for the signature.

Ex. 15

etc.

etc.

a. The key-signature for the minor scales is taken from the *original form.* The major and minor scales having the same signature are said to be "relative", but they are "relative" only by accident of signature. Prout says: "There is no harmonic relation between the two keys; such relation is found between a major and its *tonic* minor."*

b. Under no circumstances should one derive the minor mode of a scale from the major bearing the same signature. Trying to work in one key while thinking in another leads to many difficulties, and usually failure.

c. For both eye and ear drill, find the key, mode and form in the following examples of the text: 83; 87; 104, No. 3; 106; 116, No. 1; 128, Nos. 10-14-16; 148, Nos. 12-13-15.

d. After this is done, observe that one does not think and feel in two different keys when in the minor mode, neither does one necessarily think and feel the key of the so-called relative major. *The feeling for key depends upon the relation to the Tonic and Dominant.*

Facts to Remember.

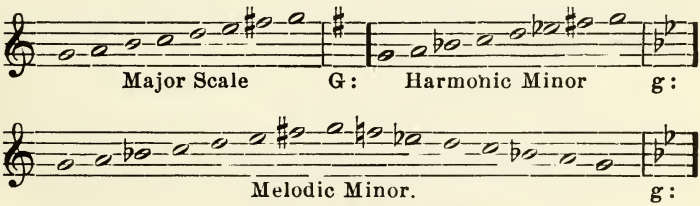
Both tetrachords of a major scale are major.

The name given to the form of the minor scale depends upon the upper tetrachord.

Every thing within the octave belongs to key, but not to any one scale.

22. Write the major, harmonic and melodic minor scales of every key, placing the flats and sharps where they are needed, and the signature after the scale, as at Ex. 16.

Ex. 16



a. As there would be no signature for them, there are no C♭, D♭ or G♭ minor scales, but we have the enharmonic† equivalents, B, C♯ and F♯.

---

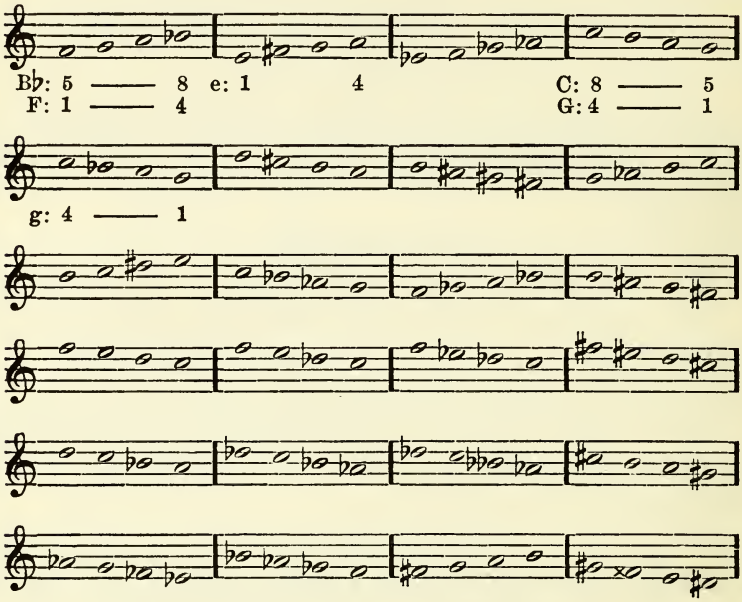
* Harmony, page 83.

† A tone represented by two different degrees of notation. For example, F♯ and G♭; C♯ and D♭.

The technical names for the degrees of the scale are :—

1st.	Tonic.	5th.	Dominant.
2nd.	Supertonic.	6th.	Submediant or Superdominant.
3rd.	Mediant.		
4th.	Subdominant.	7th.	Subtonic.

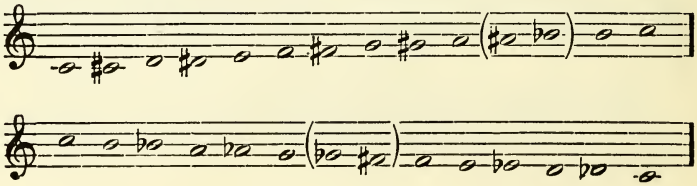
For a test, mark the following tetrachords by scale numbers, indicating the keys in which they belong. Capital letters are used for the major keys, and small letters for the minor.



The teacher should test the student's ability to name the different modes of the scale from hearing also. Familiarity with the scales and the ability to play them readily facilitates the work in harmony, and without that knowledge, one always works at a disadvantage.

23. **A Chromatic Scale** consists entirely of semitones or half-steps :—

Ex. 17



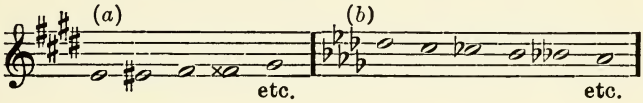
a. Theorists differ in regard to the notation of the chromatic scale. One sees 6♯ and 5♭ in melodic relations, but rarely as components of a chord, 7♭ and 4♯ being preferred for the latter. For that reason, also because of certain overtone relations, one sees the scale written as at Ex. 17, with the second of the two notes in parentheses instead of the first; also with a small second, as in Ex. 5, instead of augmented tonic.

b. An easy way to write the chromatic scales is to write the major diatonic first, leaving sufficient space for the chromatic notes that belong between them.

c. When employed chromatically, sharps are up-leaders, flats down-leaders; generally moving a small second to the next degree, such movement being called the *resolution.* For example, in the key of G, E♯ is written instead of F, because the former is an up-leader, resolving on F♯, the scale-7th. Being a small 7th in the key of G, F would naturally resolve *down*, and for that reason would be employed in the descending chromatic scale. It is owing to these principles that double flats and sharps are sometimes employed.

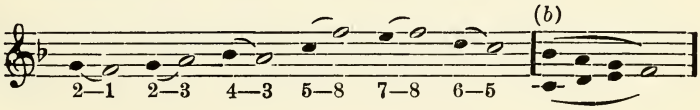
At *a*, Ex. 18, the ascending passage requires the double sharp for F (not G), and at *b* the small 6th requires a double flat:

Ex. 18



24. As the result of relationship to Tonic, there are two general qualities of tone in key—**Active** and **Passive, Progression** and **Repose**—creating what has aptly been termed "**Tonal Magnetism**". 1 and 3 of the scale are the magnets—repose tones, the remaining ones, progression tones resolving on the magnets.

Ex. 19



a. Example 19 shows that the natural resolution of Re, scale-2nd, is to either 1 or 3, and that Fa, scale-4th, is a decided down-leader to Mi, scale-3rd. Sing and name the natural resolutions as given in the foregoing example. With the Tonic as a *tone-center* (*b*), notice the tendency of the two tetrachords of key. Being the extremes of the tetrachords, the 4th and 5th of the scale may be considered the pivotal tones of the scale and key. 1, 4 and 5 are technically termed the *primary tones of a key.*

b. This principle of resolution provides a working basis for part leading that can be acquired in no other way, so it must be thoroughly understood and *felt.* In the study of harmony, the relation to chord-root is emphasized, but this melodic relation is vastly more important.*

c. The feeling for *key*, *chord-relationship* and *rhythm* are the *three essential factors* in music education. An isolated tone or chord means only so much chord material; the significance of either is derived from relationship, tonal and rhythmical. If a student does *not* feel and *hear* these relations, he should take a course of ear training to acquire it; hearing is *absolutely necessary* for the *best* results. This system is *not* for the tone-deaf.

25. **Intervals.** As mentioned in the preceding lessons, intervals are described as Perfect or Pure, Large, Small, Diminished and Augmented.

a. They are melodically related when they occur consecutively; harmonically related when they are sounded together.

b. Strictly speaking, a **Prime**—two notes on the same degree of the staff—is not an interval, although it is so classed.

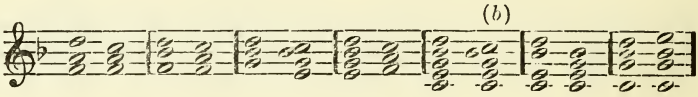
c. **A Pure Prime or Unison** occurs when the two notes are identical, indicating that two voices take the same tone, as at *a*, Ex. 21.

---

* Excepting the Subtonic, a tone occurring as root of a chord is free in movement. As chord-3rd, 5th, 7th or 9th, it *resolves* according to this principle of progression. The parts may and do *progress* otherwise, but when they *resolve*—move to a point of repose—it is *usually* this way. *Make a distinction between progression and resolution.*

Example 20 shows the scale-6th as root, 3rd, 5th, 7th and 9th, in each case resolving on the scale 5th. At (b) it does not resolve, but *progresses* to another action tone:—

Ex. 20

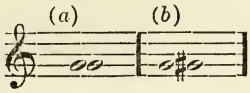


A similar illustration would apply to any other action tone of the scale. This relation is a scientific as well as a practical fact, so there is reason for the report of common feeling.

If it is understood and *felt* as it should be, very few rules relating to voice leading are necessary. The principle is better than rules, because it applies to every case, and *one is obliged to think tones in both scale and chord relation.* Rules apply to specific cases, and appeal very little, if any, to the music sense. Governing principles embody rules, but mean vastly more, because they include the rhythmic and tonal effects from which the rules arise.

d. An **Augmented Prime** occurs when one of the two notes is a chromatic semi-tone above the other, as at *b*.

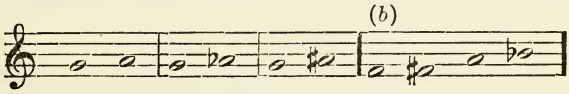
Ex. 21



e. Write augmented primes of G, B, F♯ and E.

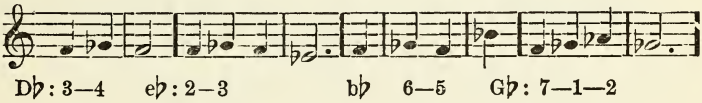
26. **Seconds** are **Large, Small** and **Augmented.** Ex. 22.

Ex. 22



a. Above each note at *b*, write small seconds in melodic relation wherever they could occur in scale, indicating both the key and scale degrees as illustrated in Ex. 23. Use the harmonic form of the minor mode. When the last tone of the interval is an action tone, resolve it according to the principle of resolution given in Ex. 19. The relationship of the material of music in key and to rhythm is that which gives to music its nature. Unrelated, the intervals have no more meaning than the unattached syllable,—ly. *Out of relation, out of music.*

Ex. 23



b. From the construction of the scales one knows that small 2nds occur between 3—4 and 7—8 of major scales, and 2—3, 5—6 and 7—8 of minors. Placing a given interval in key, it must necessarily be one of these. Think the intervals not only from the tonic, *but from any tone in key.* If this is difficult, repeat the first two tones once or twice to establish rhythmic progress; the resolution follows naturally. The only successful students of harmony and composition are they who *hear* what they see, and *think tones relatively,* not necessarily absolute pitch.

c. Two tones do not establish a key or make a melody. Both rhythmic and melodic progress and resolution are necessary. This means at least two accents and two different qualities of harmony. The weak pulses moving to the strong constitute *rhythmic resolution;* the action tones moving to repose, *harmonic resolution.* When these two coincide, the effect is a well-defined pause called **Cadence.**

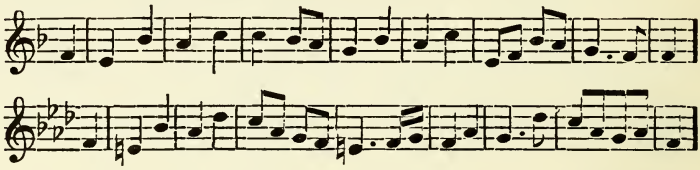
d. To think or hear an ascending small-second from F to G♭, one can say that it is 7—8 of scale, but the feeling for key is not convincing until rhythmic progression and resolution are established by

repeating the 7th; 7—7—/1, or by moving to the other side of 1, as in the example given.

e. Sing the third example in three-pulse measure instead of two-pulse, as written, and hear the undesirable effect. As scale-5th has the nature of a repose tone when beginning on the accent, there is no contrast of quality between the two accented tones as there should be on the final cadence. This would be good as a fragment of a larger whole, but not for cadence. As scale-6th is a progression tone, the two-pulse measure is better.

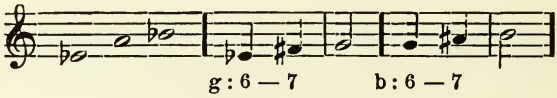
f. Summarize the points of the lesson by combining the intervals into one melody. For example,

Ex. 24



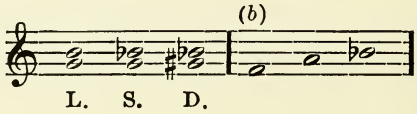
27. As observed in scale structure, there is only one place where an augmented second occurs. Write above the following and resolve them:

Ex. 25



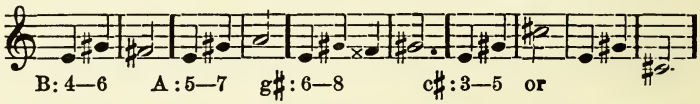
28. Thirds are **Large, Small** and **Diminished.**

Ex. 26



a. As observed in scale structure, a large third is an interval of two large steps or seconds. Write them above the notes at *b*, Ex. 26, resolving the action tones and completing the cadences as in Ex. 27:

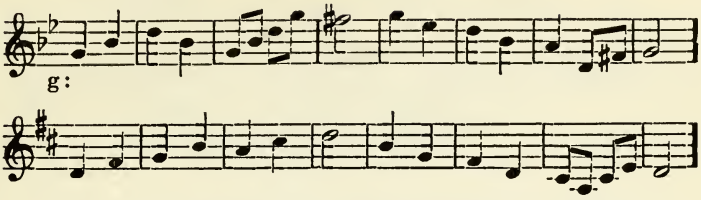
Ex. 27



b. The easiest way to do this is to begin with each degree of the scale, both modes, and make a memorandum of each place as it is found in scale. As 1 and 3 are both repose tones, there is nothing to resolve, melodically. Resolving Sol, scale-5th, in 3—5—8, the latter may be taken above or fall back to its generator as at *b*.

c. Summarize the large thirds into one melody, using the harmonic form of the minor mode:

Ex. 28



29. As observed in the construction of scales, a small third consists of one small second and one large one.

Write above and below A and B♭, resolving as before, and combining into one melody.

This work takes a considerable thought and time, but the results justify all of the effort necessary.

First, it trains one to think and feel melodic cadences and establish key in the most simple, direct way.

Second, it provides a review of key material and scale structure.

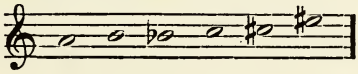
Third, it develops an understanding and feeling for the **Nature of Music.**

Fourth, it teaches the relationship of harmony to accent, and of accent to accent, essentials of great importance.

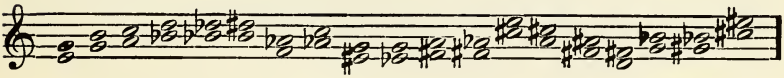
Fifth, it provides a basis for part leading in the work that is to follow, not only rendering unnecessary the customary rules with their multitudinous exceptions, but it makes *tone thinking* unavoidable.

Sixth, it is the key to modulations.

30. An interval one semitone smaller than small or pure is said to be *diminished. A diminished 3rd* consists of small 2nds, and is found in altered chords only. As these intervals do not occur *diatonically,* they may be omitted until Chapter IX, or be written without placing in key. Write above the following:—



Ear tests.



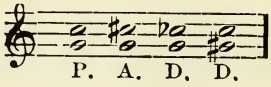
31. If one so desires, the intervals of a third may now be employed in *chord relations* as given in paragraphs 40, 44 and 45, *building in the first position only.*

After the chords are written by superposing the thirds, note the difference in *fifths.*

32. **Fourths** are **Pure** (perfect), **Augmented** and **Diminished.**

A *pure 4th* consists of two large 2nds and one small one.

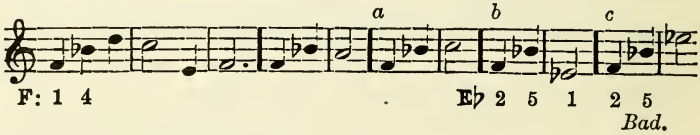
Ex. 29



Write pure fourths above F, F♯ and A♭, place them in melodic relation and resolve as in the foregoing lessons.

33. *After any interval larger than a third,* it is *usually* better for the part to proceed by leap of a third, or in the contrary direction, and not by step as at *a.*

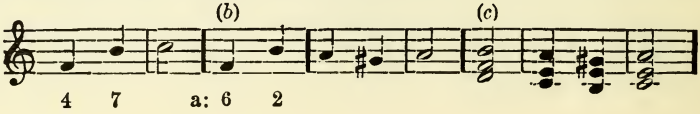
Ex. 30



The relation of quality to accent and accent to accent, is well illustrated at *b.* F, the scale-2nd, naturally resolves on E♭, the tonic. To have let B♭, the scale-5th, resolve in the usual way *up* to the tonic, *c,* would have resulted in an unrelated or irregular connection of the two accented tones. The tonic generates the fifth, which naturally proceeds in the same direction to resolution, but it is almost, if not equally as good to let the fifth fall back to its generator, and in this case, the relation of the accented tones required it.

34. *An augmented 4th* consists of three large degrees, being an interval one semitone larger than a pure 4th. Write augmented 4ths above F, G♭ and A, place in key and resolve as before. This interval will furnish a reason why the word "usually" was used in paragraph 33. Diatonically, the augmented fourth occurs in but two places, unless one should employ the unusual interval from scale-3rd to 6th in the melodic form of the minor scale. Employing an augmented fourth as 4–7 of scale, the nature of the material suggests the resolution, since both tones of the interval have a fixed resolution of one step to a point of repose. Occurring as 6–2 of a harmonic minor scale, because the nature of the material has a downward tendency, the resolution is likely to be down, as at (*b*). Employed in harmonic relations, the tendency is also down, (*c*).

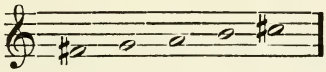
Ex. 31



From the foregoing lessons it is seen that the resolutions depend upon the *nature of the material arising from key relationship*, and that no fixed rule can be applied.

Do not try to write long melodies. The object of the lessons is to feel, hear and learn the *most direct resolution or progression to cadence*; the relation of quality to accent, and the necessity of contrast in the construction of cadences.

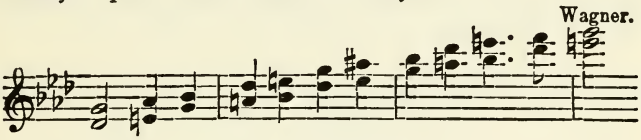
35. A *diminished 4th* consists of one large and two small 2nds, occurring between the 7th and 3rd of the minor scale. Write above the following:



Mark the types of thirds and fourths in the following example, but do not try to place them in chord or key.

Wagner.

Ex. 32

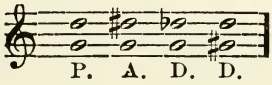


At the key-board one can see the different types at a glance by noting the degrees; a pure fourth containing one small second, a diminished two, the augmented all large seconds—no half steps.

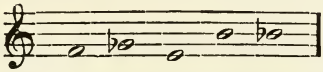
All of the intervals in key may be placed in melodic relation if one chooses to do so; but, in the author's experience, students have acquired the understanding and skill for which the lessons were designed, so more work of the kind is needless. The remaining intervals may be observed through the study of chord structure given in the next chapter.

36. **Fifths** are **Pure, Augmented** and **Diminished.**

Ex. 33

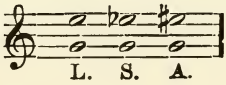


Write the three types above and below the following:



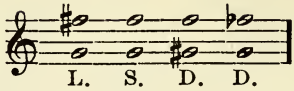
37. **Sixths** are **Large, Small** and **Augmented.**

Ex. 34

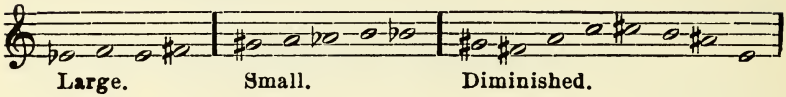


38. **Sevenths** are **Large, Small** and **Diminished.**

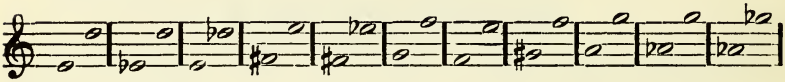
Ex. 35



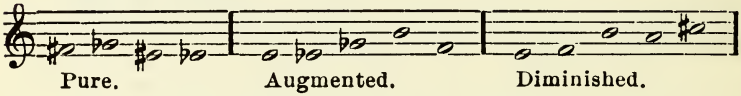
Write as indicated.



Ear tests.



39. **Octaves** are **Pure, Augmented** and **Diminished.**
Write as indicated.



Facts to Remember.

An interval one semitone smaller than small or pure is said to be *diminished.*

Larger by one semitone than large or pure, it is *augmented.*

Review Questions.

Write the signature for C♯ minor, D♯ minor, E♭ minor, B and C♭ major.

Name the letters in the upper tetrachord of the G harmonic minor scale, and the descending form of A♭, melodic minor.

Name the letters of E major and F♯ chromatic scale.

What action tones are up-leaders? Down leaders?

What is the difference between chromatic and diatonic semi-tones?

Write an example of each.

Where do small seconds occur in the harmonic minor scale?

Where do the following intervals occur: Diminished 4th? Augmented 2nd? Diminished 7th? Augmented 4th? Diminished 5th? Large 6th?

Name intervals in selected two-part work, both by sight and sound.

CHAPTER II.

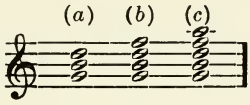
Chord Structure.

40. Julius Klauser defined chords as "*Selective* combinations of two, three, four, five or more individual tones."*

He coined the word "Biad" for a two-tone chord by analogy with *triad*. In chord, the term *interval* refers to the relation of the tones to the root. The chord intervals may be distinguished from the scale numbers by designating the former as chord-3rd, chord-5th, etc. A chord-3rd is not necessarily the 3rd of the scale. Chord-3rd or chord-5th means that distance from root, and has no reference to scale position.

41. **A Triad** is a three-tone chord consisting of a root (generator), third and fifth. The simplest arrangement of these chord degrees is when they appear as superposed thirds, Ex. 36. The chords are then said to be in the *fundamental*, or *root* position.

Ex. 36

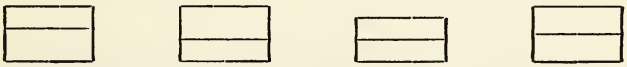


42. **A Seventh Chord** is constructed by superposing another third upon triad, *b*, Ex. 36, this note being a seventh above root.

43. **A Ninth Chord** is constructed by superposing both seventh and ninth upon triad, as at *c*.

44. In the arrangement as given, the diatonic chords are constructed of large and small thirds only, the mode of the chord depending upon the location and combination of thirds.

a. A simple way of finding all of the possible combinations and resultant modes is to represent the thirds by two sizes of blocks:



Large, small. Major.	Small, Large. Minor.	Two small. Diminished.	Two large. Augmented.

With this plan, even children can find the different types on the key-board in a very few minutes *if they have first learned thirds*.

b. As the third and fifth of the major and minor chords are the same as in the scales, naturally, the chords would be so described or classified.

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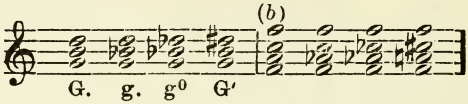
*The Nature of Music.

c. The combination of two small thirds results in a diminished chord-5th, a characteristic that describes the chord as a **Diminished Triad.**

d. The two large thirds make an augmented chord-5th, so the mode is described as an **Augmented Triad.**

45. Employing each tone within the octave as root, write, play and sing the four types of triads, indicating the root and mode by capital letters for the major and augmented, with the acute sign for the latter as shown in Ex. 37. Small letters are employed for the minor and diminished triads, with the degree sign for the latter:

Ex. 37

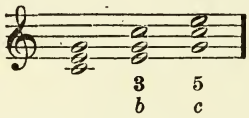


46. For drill in tone-thinking, the student should sing the various chord degrees, naming them and testing himself at the keyboard. In the study of music, the first commandment is: *Think Tone*, and the second and third are like unto it.

47. Adding a fourth part by repeating the root in the higher octave, one sees the interval of a fourth from the chord-5th up to root; Ex. 37, *b*. What types of fourths are found? They may also be represented by blocks for those who are helped by the device.

48. When the relative position of the chord degrees is changed by placing other than root in the lowest part, the chord is said to be inverted:

Ex. 38



When the chord-3rd is in the lowest voice, the position is said to be the *first inversion*, which may be indicated by the figure 3 below, or the letter b. With the chord-5th in the low voice, we have the *second inversion* of the chord which may be indicated by 5 or the letter c. Theorists are not agreed on the terminology relating to *inversions* and *positions*. One idea is to use the term *inversion* when referring to the lowest voice, and *position* with reference to the upper voice. As this system is developed on the melodic basis, there is little need of the distinction; neither is there occasion for the figured bass found in many text-books.*

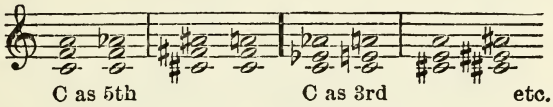
*Numbers are used for so many different purposes in music that there is always more or less confusion in the minds of the students. First, they indicate rhythmic order; that is, the pulses in a measure; second, they indicate scale relation; third, the intervals of harmonic relation. Why add to the confusion by employing a set of numbers that express neither scale or harmonic relation? If numbers are used, there is no reason wny they should not correspond with the harmonic relations, and it is much more simple. Letters to indicate the chord positions are easy. If the student is already familiar with the system used for the figured bass, there is no objection to their use, providing they indicate position *only*, and are *not* the basis of the work. The need and usefulness of the system no longer exists.

If one wishes to designate the chord degree of both upper and lower parts, it may be said that a chord is in the position of the *root* and *third*, *fiifth* and *third*, etc., mentioning the melody tone first, or vice versa, as one chooses. The important thing is to *hear* the relation of this key material and know how to use it.

In the second and third positions of a triad, the interval of a 4th is seen from 5th to root. As that is the only place in a triad where a 4th appears, it may always be recognized as 5—1 of the chord, but not necessarily 5—1 of scale.

49. Employing each tone within the octave as 3rd and 5th of a triad, play and write the second and third position of both major and minor triads. Take the third position first, because it is much easier to think.

Ex. 39

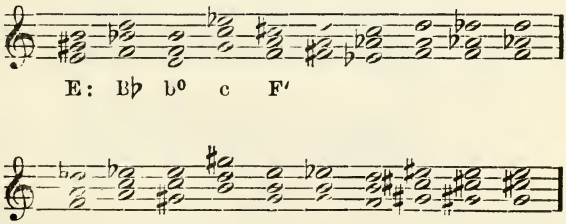


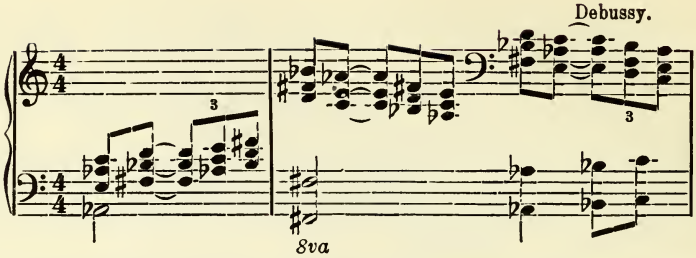
By all means learn to think and feel the chord relation from any interval, so that recognition of a chord may not depend upon playing or seeing it in the first position. Spell the chords, that is, name the letters, sing the intervals and play them, moving quickly from one position to another. If it is difficult to think a fourth first, repeat the first tone to establish rhythmic progress, as suggested in the previous lessons: 5 5/1, 5 5 5 /1, 5/55/1.

Chord structure is now reduced to the simple process of combining the two diatonic thirds, (large and small), or a third and a fourth, so there is no reason why one should not be able to think every type of chord in every position.

50. Mark the following, indicating the root and type, and name the same when played for ear tests:

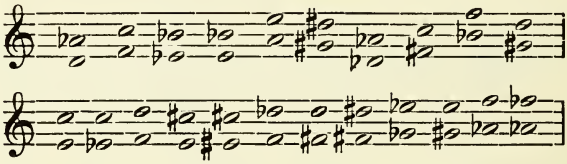
Ex. 40





Add another note to the following, making as many types as possible:

Ex. 41

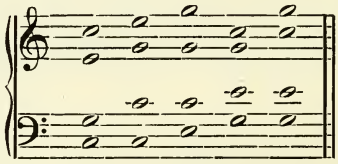


51. Employing four parts, one tone of a triad must necessarily be doubled. Nature gives us space relation in the overtones, Ex. 4. Beginning with the upper octave of the root and generator, there are two roots with one fifth and one third; beginning with the fifth, there are two fifths with one root and third each. From this, deduce a working basis:

With the root in the bass or lowest part, double the root.
With the fifth in the bass, double the fifth.

52. When the tones of a chord are widely separated, as at Ex. 42, it is said to be in "open" or "extended" position. If, in four voice writing, the soprano and tenor are within an octave, the harmony is said to be in "close position." In open position, the tenor is generally more than an octave from the soprano, and the parts are more evenly distributed.

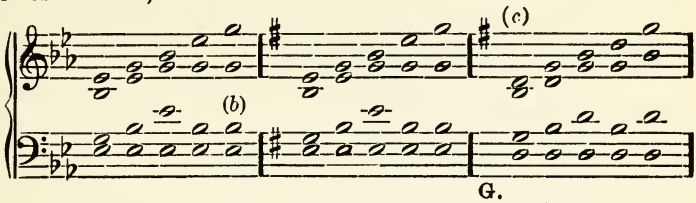
Ex. 42



For vocal music the alto should not be more than an octave from either the tenor or soprano. A passage may begin in open position and some of the chords change to close, the positions interchanging as the movements of the voices require.

53. Taking different pitches as root, write and play major and minor triads, keeping the root in the bass and placing each degree of the chord in the upper part, as in Ex. 43. On account of certain acoustical laws, for vocal music *the fifth and third should be kept within the octave.* This is not always possible or desirable for instrumental music, because the outside parts are so often very far apart. To avoid the separation of the fifth and third to more than an octave, the third is sometimes doubled, as at *b*:

Ex. 43



a. In relation to its fifth, the *small* third of the minor triad stands as a generator, so the doubled third is often heard with good effect. The small intervals are darker in hue, another reason why they are doubled more frequently than the large thirds.

b. The *lesson* of the *lesson* is to cultivate skill in the distribution of the parts. It is a delicate and subtle art, as the different tone-combinations (inversions and spacing of parts) give varied harmonic effect and expressiveness.

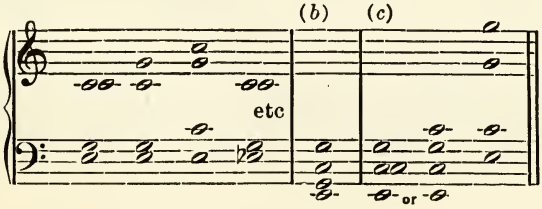
54. Employing the chord-5th in the bass, begin in close position and write with each chord degree in the upper part as at Ex. 43, *c*. Observe the unstable effect of chords in the second inversion, in contrast to the stable, anchored effect of the root basses.

55. As the chord-3rd determines the mode of the major and minor chords, it may be termed the "color" element, in distinction to the "basic degrees",—the root and fifth.

a. Since one is less likely to increase the color elements, especially in a major chord, the relation of the third and fifth determines to a certain extent the doubling of parts in the first inversion of a chord. The melody tone is usually doubled, but not always.

In the low register, *b*, Ex. 44, the effect of thirds is too thick, so the distribution of the parts at *c* is better, although the chord-5th and chord-3rd are more than an octave apart. Pitch, then, is an important factor.

Ex. 44



b. The patterns of Ex. 43 and 44 should be played with many different roots. Take them on consecutive degrees first, then a pure fourth apart.

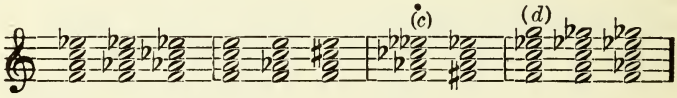
56. Some of the French theorists apply the term "species" to the various types of chords, the species numbers corresponding to the order given in Ex. 37. It is a very practical term to apply to the seventh and ninth chords.

a. Superposing a small seventh upon each triad, the seventh-chords may be designated as at Ex. 45.

b. What kind of thirds are found between the chord-5th and chord-7th of the various species?

c. What kind of a seventh is employed in the first three species? In the fourth?

Ex. 45



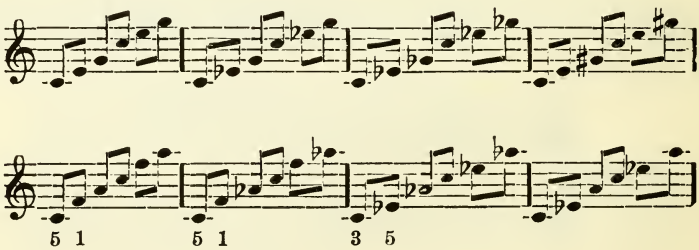
1st. 2nd. 3rd. 4th. Dim. 7th. 1st. 2nd.

57. Superposing a small third upon the diminished triad, there is a diminished seventh above the root from which the chord receives its specific name,—the **Diminished-Seventh Chord.** *c*, Ex. 45.

58. The ninth chords are first and second species only; *d*, Ex. 45.

59. Sing, play and write the various species of seventh and ninth chords, building upon many different roots. Placed arpeggio-wise, they make excellent patterns for technical drill, keeping a given tone as root, third, fifth etc.

Ex. 46



Test Questions.

What is a triad? A seventh-chord?

Write and play a seventh-chord of the third species.

What distinguishes the fourth species?

In what type of triads are pure fourths found?

In what type does a diminished fourth occur?

An augmented fourth?

What kind of a fifth is found between the root and fifth of a diminished triad?

Between the root and fifth of the third species of a seventh-chord?

When is a chord said to be in the first inversion?

What kind of a sixth occurs between the chord-3rd and the root above in a major triad? A minor?

What is generally doubled when the first inversion is written in four parts?

What is the most stable position of a triad? The most unstable?

What kind of a sixth is found between the chord-5th and the chord-3rd of a major triad in the second inversion?

Of a minor triad?

What is generally doubled when the second inversion of a triad is written in four parts?

Name one particular condition when the large third is doubled.

Write the first three species' of seventh-chords in open position, employing each degree of the chord in the bass.

Write the ninth-chords in open position, root bass, omitting the chord-5th.

CHAPTER III.

Chord Relationship.

60. In Chapter I we considered the relation of **tones in scale.** In Chapter II the relation of **tones in chord.** In this chapter we will consider the **relation of chords in key.** In the author's judgment, students should be prepared for the study of harmony by a course of ear training sufficient to enable them to *think music* and *hear* what they see. Such training is as necessary as the study of grammar for one who expects to write English. When so prepared, the student can begin the study of harmony at this point.

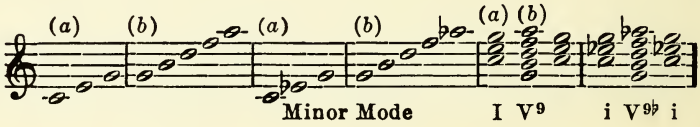
Fully understanding chord structure, the student is now ready to leave the fundamental tone as a working basis, and work from the melodic and rhythmic basis only.

Mr. Klauser made a distinction between *chord* and *harmonic* relations, the *harmonic* percept arising from a chord of *definite* key material. For example, G, B, D are components of a G chord that might belong to many keys. By itself it is nothing but so much music material. Considering the chord as 1, 3, 5 of key, there is a quality arising from the scale degrees which is more than mere chord relation of intervals; there is a *harmonic percept.*

Because the material of each chord in key varies, the laws governing them apply only in the general way presented in the previous chapter. Each chord possesses certain specific qualities resulting from the key material of which it is composed, so it is very important that one should hear not only the relation to chord-root, but also *hear the scale relation* of the material employed. That the student may from the outset hear the scale material in its harmonic aspect, but two harmonies are employed in the beginning, the others being introduced progressively.

61. Grouping together tones of a similar quality, we have a triad of the magnets (a) and a ninth chord of the action tones (b).

Ex. 47



Do—the tonic—asserts itself as the root and harmonic generator of the 3rd and 5th: Sol—the dominant—asserts itself as the root and harmonic generator of *all* of the action tones.

a. Referring to Ex. 47, begin on each degree of the scale which is here placed chord-wise, and name the type of triad built on each

tone. Observe in particular, the location of the augmented and diminished triads.

b. Beginning with the scale 5th, one sees that the first four tones of the action group are identical with the first species of seventh-chords. Unless formed of the original minor scale, the Dominant-seventh-chord is the first species.

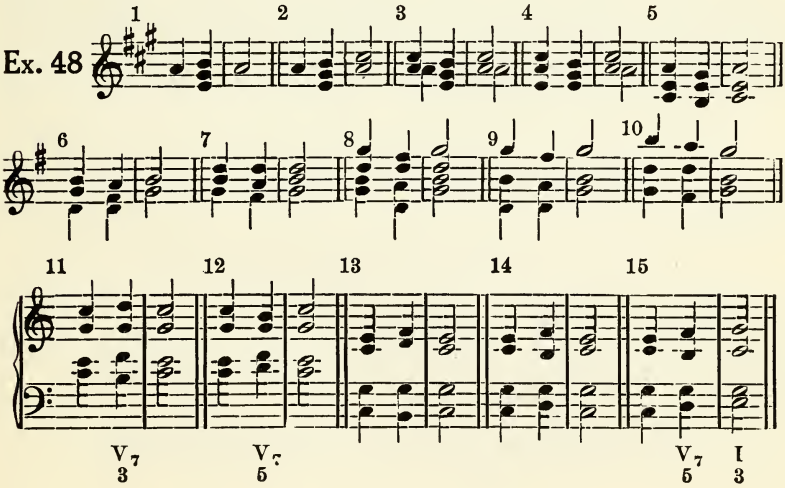
62. The dominant harmony followed by the tonic makes what is known as the **Authentic Cadence.** *Perfect* when the root of the tonic chord falls in the two outside parts with root bass in the dominant chord; *imperfect* when otherwise. Ex. 48.

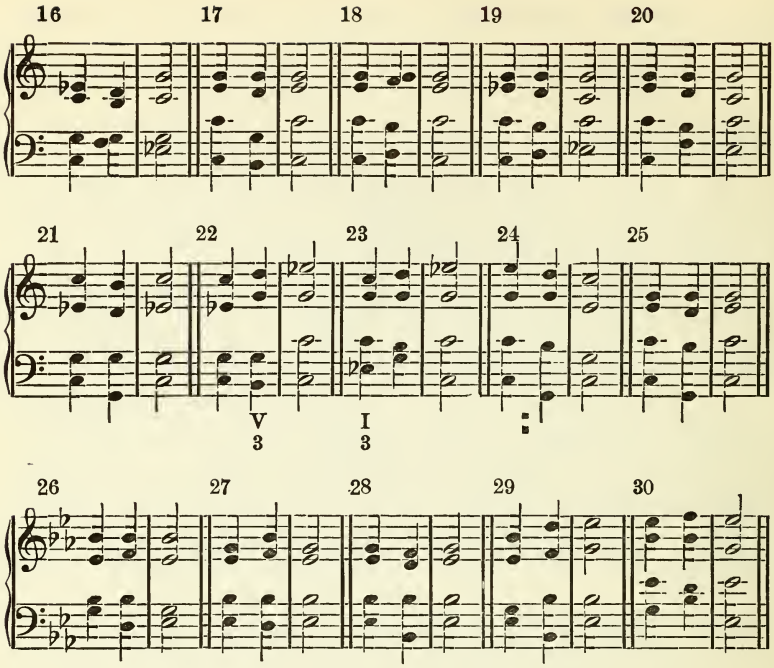
a. As cadences make or mar the artistic side of a composition, their importance cannot be over-emphasized. As one should think and write phrase-wise, treating each part as an individual melody, the cadences are the *objective points* to which everything leads.

b. While hearing the parts as superposed melodies, as stated before, each tone should be heard in relation to the root of the presiding harmony. For training in this, play the patterns of Ex. 48, sing and name both the scale and chord relation of every tone. For example, taking the upper part of No. 11: Do, chord-root to Re, chord-5th to Do. Bass: Do, chord-root to Ti, chord-3 to Do. Alto: Sol, chord 5th, Sol, chord-root, Sol. Tenor: Mi, chord-3 to Fa, chord-7th, to Mi.

c. Sometimes there is confusion about the sevenths, so notice that the scale 7th, is *not* the dominant-7th. Other relations will be employed later; the lesson *now* is to *hear* these two relations, chord and scale, so that the **Nature of the Material** may be the guide to all part leading.

Ex. 48





d. The root of the chord is indicated by a Roman numeral corresponding to the degree of the scale upon which the chord is constructed, and the chord degree is indicated by the Arabic numeral below the Roman. From this time on, the harmonies will be so indicated when referring to them in the text.

e. The cadence patterns should be transposed to many keys and played in both modes. Transposition is very valuable for ear-training and tone-thinking, without which there is little success in the study of harmony. To write without hearing is as hopeless as painting by the color-blind.

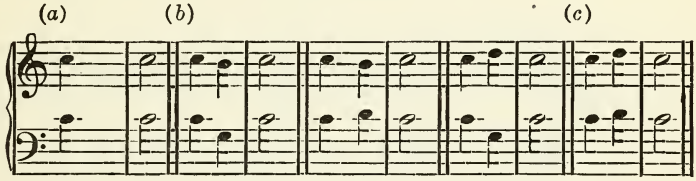
63. The student should now construct cadences without help, except that given in the text. Outline the musical picture by writing the two outside parts before the middle parts are considered. As the bass is second in importance to the melody, acquire the habit of giving those parts the first and most attention. When a good bass is written, three-fourths of the work is done.

a. First decide upon the *objective point*, or final tone for the cadence which will be 1 or 3 of the scale for the bass, because they are

the only strictly repose tones. From the preceding work, one knows that the root may be doubled, so it may be selected for both of the outside parts.

b. It is not absolutely necessary to begin with a repose tone, but as it is easier, do so for the present. Having selected the close as at (a), Ex. 49, for the V harmony take any two paths that will lead to the close selected, as at (b). The essential thing is to see that both parts do not take the same path as at (c), which would simply repeat the melody in another octave. The idea and purpose of harmony is to add color and diversity to the parts, so of course the movement of the parts will not be identical.

Ex. 49



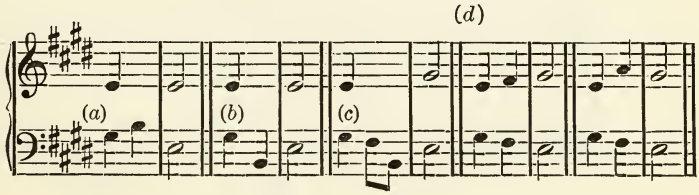
Bad.

c. By placing each melodic pattern in the upper part and putting every possible bass with it, one can easily find many interesting combinations.

d. These cadences are not necessarily what should be used at the close of a composition, but also what would be suitable for the close of any phrase and any tonic harmony within thé phrase. This brings into use the inversions, but with only two harmonies, that is a simple matter. The practice of writing and playing root basses persistently is one of the pitfalls of the beginner, and worse than time wasted, because it is a habit difficult to eradicate. As there is no good music without inversions, the habit is not only negatively bad, but positively so.

64. Moving from 3rd to root, the progression for the bass at (a), Ex. 50, would be better than at (b), the small leap of a third being preferable to the sixth. This does not apply to the upper part, which is expected to be more decorative in melodic line.

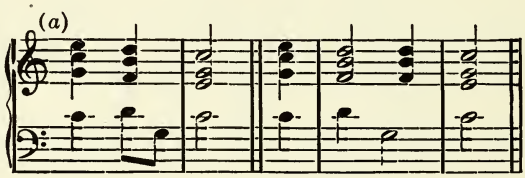
Ex. 50



a. If the low B is desired, another tone which would also lead to to the final tonic could be interpolated as at (c), then the long leap of a fifth would be from a *tone of the same harmony*, a regular overtone leap. *Long leaps to the same harmony* are good, but to other harmonies must be made with care. Specific cases of this will be discussed later. At (d) the same action tone is taken for both parts, but as they are approached and left in contrary direction, the effect is good.

b. The bass of (a), Ex. 51 is not good. The interpolation of G does not erase the effect of D and its relation to C in the following bar. To have placed D on the accented pulse with longer duration of G, the relation of D to C is lost and the effect is good. Observance of the color principle for inversions obviates these undesirable effects.

Ex. 51



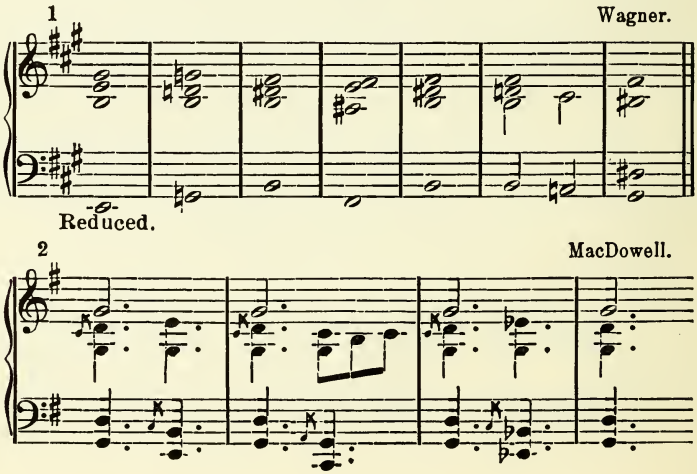
Bad. Good.

c. Do not add the middle parts until the two-part work has been corrected. Take each path to cadence for both parts alternately. Play them in many keys and sing one part while playing the other.

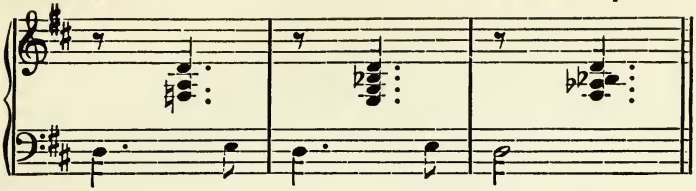
65. That the foregoing work may be corrected before doing any more of it, a review of chord-structure is suggested here.

Mark the common tone in the following excerpts, indicating the chord degrees. For example, B is 5th, 3rd, etc.

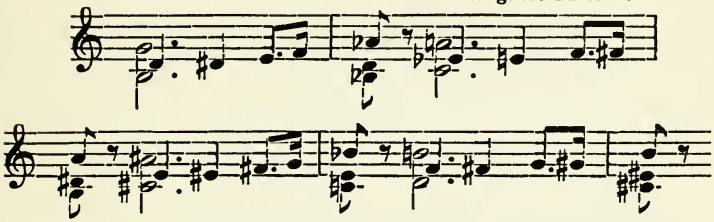
Ex. 52



8 MacDowell: Op. 55.

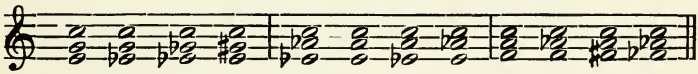


Wagner: Parsifal.

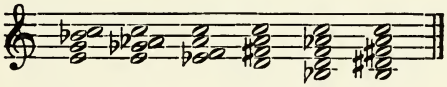


66. Keeping a given tone in the upper voice, employ it as 1, 3, and 5 of the four types of a triad; dominant and diminished seventh; large and small dominant ninth.

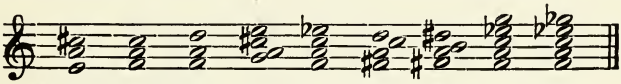
Ex. 53



C as root, 3rd,



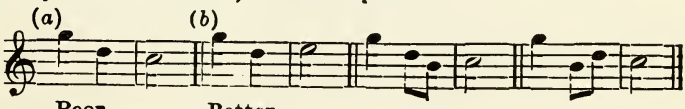
Do the same with a given tone in the first and second voices:



A root, 3rd, 5th, root, 3rd, 5th, 7th, 3rd.

67. Beginning with Sol, scale-5th, and taking the various paths to I, observe the following: Unless the movement of the voice follows the harmonic line (chord degrees), after a leap larger than a 3rd, the progression is *usually* in a direction *contrary* to that of the leap. For example, as at b, it is better to let the D—the second of the scale—move to E in preference to C, the stronger magnet. *After long leaps* the voice may move *chord-wise*, but *not step-wise.*

Ex. 54



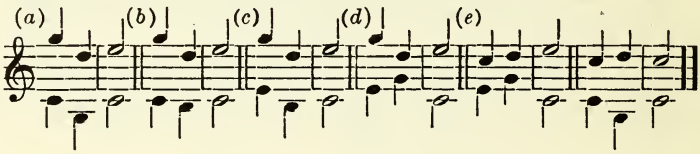
(a) Poor. (b) Better.

Exceptions to this rule will be given later, but none should be made in this lesson.

68. The scale-2nd (V-5th) might resolve on Mi, chord-3, as in Ex. 55. Adding the bass, one should not write as at (a). In the first bar, the parts both leap the same distance in the same direction, and they are both basic degrees of the harmony—root and 5th of I and V. Having the same chord relation and moving identically, there is no contrast. The example at (b) is top-heavy, but possible in the middle of a phrase.*

a. At (c) there are two consecutive first inversions which are good, although the parts both move by leap the same distance in the same direction. In this, the relation of the parts is 5th and 3rd—basic and color, not two basic degrees as at (a). This cadence (a harmonic resolution only) would be desirable only *within* a phrase, not for a close.

Ex. 55



b. Naturally, the doubling cannot always be the same for consecutive first inversions, as consecutive octaves would result. With more than two, the root and 5th would be doubled alternately.

Deducing Rules for this Chord Connection: *Outside parts moving in parallel motion should be color and basic, not both basic.*

As octaves, fifths, and fourths are all basic relations, they should not be employed consecutively *between the outside parts.*

(At (d) and (e) of Ex. 55 there is a basic relation between the parts of V, but they are not taken consecutively, both the preceding and following chords having a basic and color relation.)

Basic relations may be taken consecutively if the parts move in contrary direction.

69. Do not employ the melody, 5-2-3 for the bass, but for the present, only the repose tones, 1 and 3, for both beginning and close. The scale-5th may be employed in the upper parts of I without destroying the distinctive quality of the harmony. The chord degree in the bass greatly influences the nature of the harmony, and there is a

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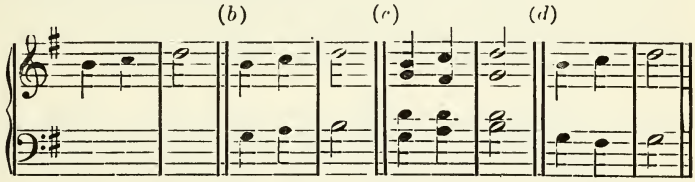
*Because they are used so much, especially in modern music, consecutive fifths are not forbidden. The principle of relationship embodies all of the rules that are generally given, and vastly more. As various effects are observed, the student learns the conditions that make a thing desirable or not. As the average student obeys rules blindly, they should never be given arbitrarily, but deduced from a consideration of the tonal and rhythmic effects. What is needed, is an appeal to the music sense; an esthetic experience. Experience is the only real teacher. A mastery of the material of music can never be acquired by accumulating facts or rules about music.

dual quality when the chord-5th falls in the bass. With the chord-5th doubled as it usually is in I, the progression quality is accentuated, so that the chord does not produce a strictly tonic impression. For this reason I is *not employed as a final cadence chord, or anywhere* that the strictly tonic quality is desired. With root or third *below* the chord-5th, the repose quality of the chord is preserved.

70. At Ex. 56 the chord-7th ascends to Sol, chord-5th. The natural tendency of Fa, chord-7th is *down* to Mi, chord-3. Since it does not so resolve, the ear should be satisfied by hearing the natural resolution in another prominent part. As the bass is next in importance, the chord-3rd may be taken in that part, and would naturally be approached by Re, chord-5th, the other tone demanding Mi, (b). Since they are the only tones that demand Mi (chord-3rd), if Fa, chord 7th does not take it, Re, chord-5th must.

Ex. 56



Bad.

a. The example at (d) is also bad because the outside parts are progressing by step in the same direction to basic degrees, root and fifth. There are occasions when the ascending 7th is employed in a middle part, but the necessity will not arise for some time, so the student is advised not to use the 7th in any part except the melody, unless it resolves regularly.

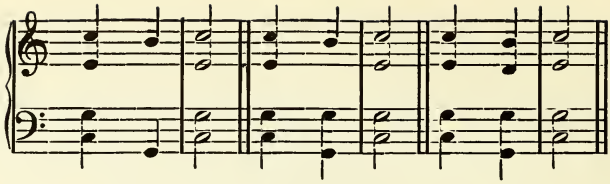
71. After the two-part work has been corrected, add the two middle parts, but do not change the outside parts. Place the numbers indicating the chord degrees of the parts already present, both above and below, then ask yourself: What have I? What do I need? What part is nearest to the chord degree needed?

a. Complete the I chords first, observing the principles of part distribution discussed in the preceding chapter.

b. Select the action tones that will lead to the cadence written. Scale-6th resolves on 5, but as it is the dominant-9th, omit the use of 6 until ninths are discussed in detail. As Sol, scale-5th is a component of both harmonies—I and V, it may be kept in one part for both chords instead of 6, as seen in the patterns of Ex. 48.

c. As the tenor part is more important than the alto, select that first. Since scale-6th is not to be used yet, in Ex. 57 the tenor would naturally keep the common tone, scale-5th. For the alto, either of the two paths to scale and chord-3rd may be employed.

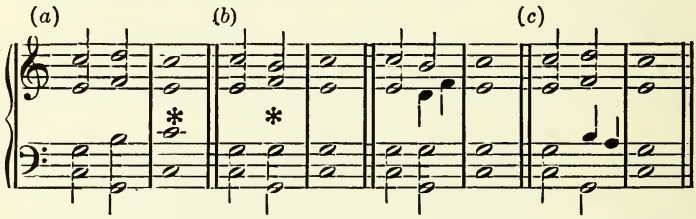
Ex. 57



72. As the root provides the basic quality for a chord, the fifth is sometimes omitted, (a) Ex. 58. The chord-7th is often substituted for the 5th, and sometimes they are both employed, as at (b).

a. For a closing cadence, the fuller effect obtained by the presence of the fifth is preferable for I. Because of this, Ti, chord-3 frequently falls to its generator, the scale-5th, instead of the natural resolution. The full effect of I is more important than the resolution of one tone in a middle part, also on a weak beat. A characteristic of Grieg's was to let Ti, chord-3 move through La to Sol, 7-6-5, when in a middle part, but he was quite likely to omit the 6 in a descending melody, an omission frequently found in Oriental music.

Ex. 58

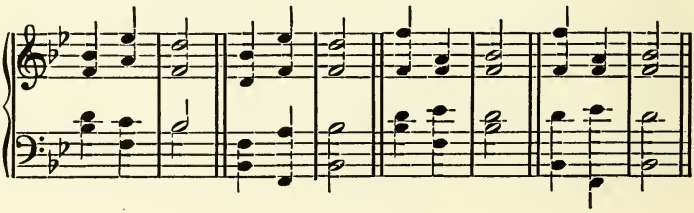


b. Place a given melody in the tenor, also the alto, *writing both above and below it.*

73. In following the lines of least resistance from the first note to the last, the parts will seldom all leap at the same time, neither are they likely to all move in the same direction by step.

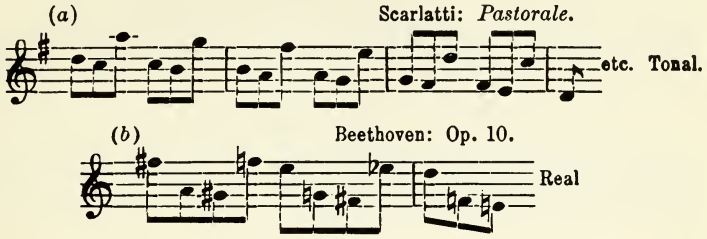
a. When the melody moves by leap, Ex. 59, it is well to begin in close position unless very widely dispersed parts are desired for the remaining harmonies. In contrast to that, if the melody *descends* by leap, it may be necessary to begin in open position.

Ex. 59



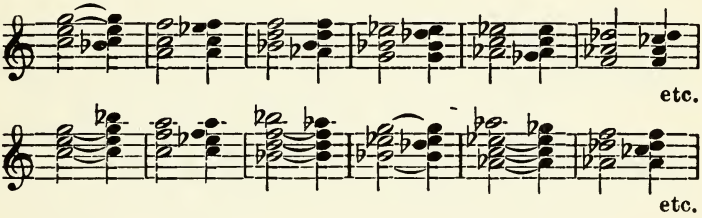
74. A Sequence is a tone figure repeated on different degrees of the scale. It may occur in harmony or in melody. There are two kinds, *Tonal* and *Real;* the former remaining in the key (a), the latter an exact reproduction necessitating a modulation for each figure (b).

Ex. 60



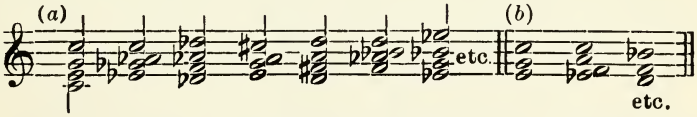
75. By adding a small 7th to a major triad, converting it into a dominant-7th chord and making an enharmonic change from G♭ to F♯, a harmonic sequence of V7–I can be made through six flats and six sharps back to the key of C:

Ex. 61



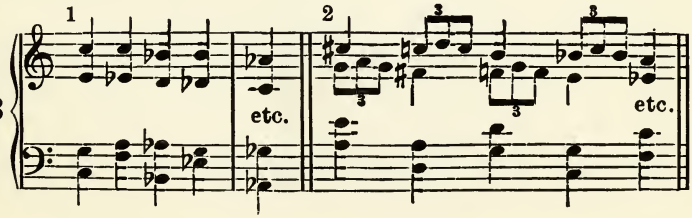
a. Another sequence of V7–I may be effected through a common tone, the root of I being taken as 3rd of V7 (a), also as 5th of V7 (b):

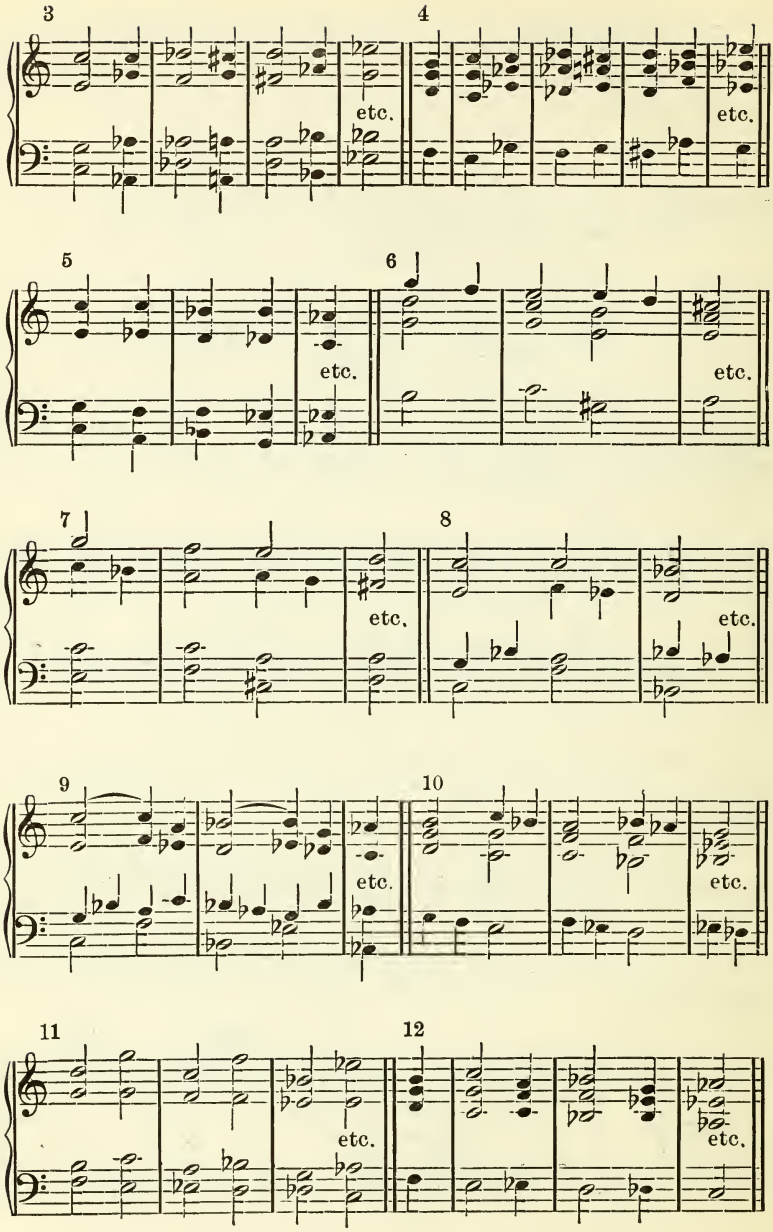
Ex. 62



b. Another common change is from V7 to V7. Observe the root relations:

Ex. 63




3
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CHAPTER IV.

Melody Writing and Harmonization of Longer Melodies.

76. Longer melodies may be constructed by employing two or more tones of the same quality in a bar. Some of the leading theorists use the term *Section* for the metric group next larger than a bar. *A section may be two or three bars, not more.* Larger groups become line or verse which, grouped together make stanzas, or periods.

a. The symmetrical, proportionate grouping of these factors is the most important feature of a composition and constitutes the **Form** of music.

77. Phrase refers to content and is defined by cadence, so it may be of varying lengths. This will be discussed in detail later. The relation of harmony to section and phrase accents is of great importance; in fact so important that it seems impossible to emphasize it sufficiently in a text.

a. The most essential factor in the harmonization of melodies is the selection of harmonies to meet the metric and rhythmic needs. As the harmonic regulation is greatly influenced and largely determined by the section accents and their relation to the whole, this must be considered before any attention is given to details.

b. In all rhythmic groups there are the strong and weak elements; not only strong and weak beats in a bar, but strong and weak bars in a section, strong and weak sections in verse or line, strong and weak lines, and the same of stanzas. The harmony must be selected to amplify these effects, so, after marking the close of the various rhythmic groups, the next thing to do is to select the harmonic regulation of the *entire melody.* As there is generally more than one way of treating a melody, especially the longer ones, the first plan may be modified as the details are worked out, but *there must be a definite plan before any detail is considered.*

c. The weak beat followed by strong constitutes a rhythmic cadence, and when a harmonic cadence coincides with the rhythmic, a phrase is clearly defined. At Ex. 66, No. 4, the root of the fourth chord gives no feeling of repose because it falls on rhythmic progression. The weak beats are relatively unimportant, but the accented beats are the pegs on which decisive facts hang. As in all art, Contrast, Unity and Proportion are essential elements.

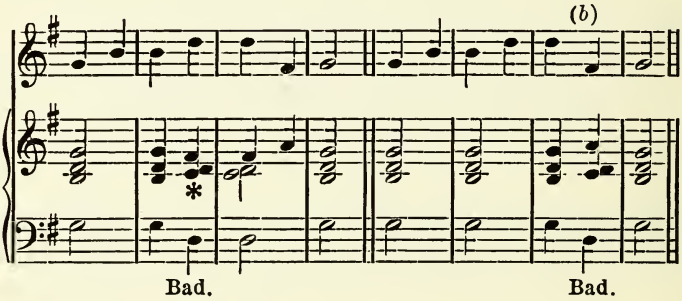
d. As stated before, the purpose of harmony is to strengthen rhythmic and melodic relations. Since harmony exists subject to these relations, it naturally follows that a consideration of the latter would be the first step in the harmonization of melodies. The work of this

chapter has been planned to develop and emphasize the facts stated in the foregoing paragraphs. To do that, to avoid note by note work and form the habit of thinking section and phrase-wise, also the relation of one to the other, the first melodies have been written to require but one harmony in a bar.

e. In the melody lies all that should be added to it. Melody and rhythm generate harmony. Working on that basis, the exercise of harmonic feeling is unavoidable from the beginning, and one is *obliged to hear and think music.* "From harmonic feeling springs harmonic percept. From percept concept." Replying to the threadbare argument that the student should do the mechanical, figured bass work to acquire "a foundation," not more than one in ten thousand ever gets beyond this so-called "foundation," because the first impressions are the lasting ones, and they build on rock that is too barren for real music growth. Music is a matter of *ear* and *feeling.* Cultivate both.

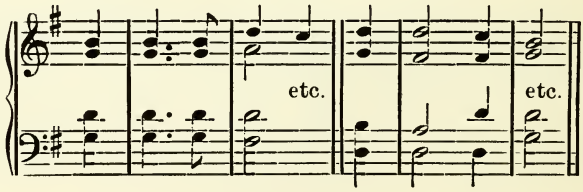
78. To demonstrate the fact that accent is a factor in the selection, and that a tone does not necessarily generate its own harmony, play Ex. 64 and change the harmony on the first D, instead of the second one (in the third measure); then change to the dominant harmony on the last of the measure, as at (b). Change on the accent for a satisfactory result.

Ex. 64



If the melody *begins* on a weak pulse, the same bass note, or the harmony can be carried over in the same position without weakening the full measure, or the harmony falling on the accent.

Ex. 65



79. As nearly every principle of writing can be learned in dealing with I and V7, it is better to restrict the work to the use of those two harmonies until the fundamentals are thoroughly mastered. Variety of chord positions and modes is more important than the use of many harmonies. Each position and inversion produces its own characteristic effect, and the selection of these to meet the specific metric and rhythmic demands of a melody is an art that requires thought, experience and good taste. The best way to cultivate good taste and judgment is to exercise it.

80. Unless the tempo is very rapid, the law of contrast requires the use of an inversion when two or more successive bars of the same harmony occur.

a. Considering each part as an individual melody, inversions are sometimes employed to make the melodic line more interesting.

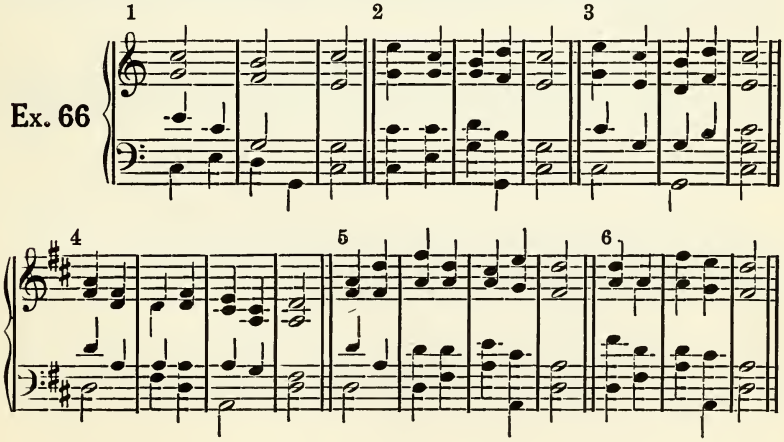
b. Employing one harmony successively, the artistic law of contrast requires the movement of at least one of the outside parts. The correct distribution of the parts requires at least a change of a second part.

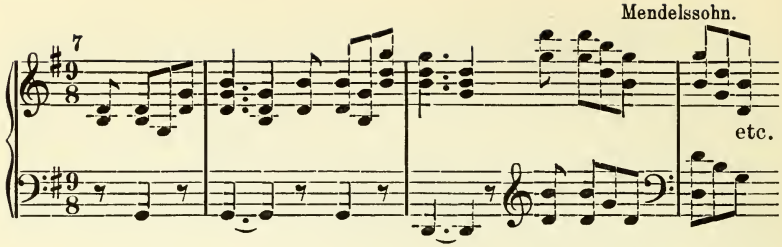
c. On general principles, if the upper part moves by leap, the lowest part remains static, and vice versa, Ex. 66. The parts may all move by leap to other degrees of the same harmony, as in the excerpt from Mendelssohn.

81. In the previous chapter, attention was called to the fact that root basses were stronger in effect than inversions; the former being "anchored," while the latter augment the rhythmic continuity.

For a conclusive close, the root bass of both V and I should be employed. With a slow tempo, V^{5} (the second inversion) is sometimes employed at the beginning of the cadence section, Ex. 66, No. 1.

Ex. 66



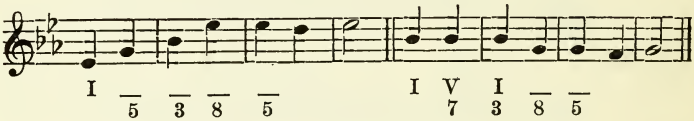


a. In the second bar of No. 4, Ex. 66, the root falls on the accented beat of the melody, so the chord-3rd in the bass not only provides a pleasing contrast with it, but also with the root in the bass of the preceding bar. To continue the third when the soprano takes it on the second beat would be less pleasant than to return to the root. Because the entire section is tonic quality, and the change of quality should occur at the *section accent* of the cadence, $\underset{5}{\text{I}}$ should *not* be employed on the fourth beat.

The quality of an accented place should not be anticipated on a preceding weak beat or bar. The progression quality of $\underset{5}{\text{I}}$ prohibits its use when strictly tonic quality is desired. Because it *does* possess the progression quality, it is in good taste to use $\underset{5}{\text{I}}$ at the beginning of the cadence section as at No. 6.

b. The same principle applies to the second bar of No. 5. As the chord-3rd occurs in the melody, the first inversion would not be desirable, and as $\underset{5}{\text{I}}$ would anticipate the accent of the cadence section, it should not be employed. $\underset{5}{\text{I}}$ is useful in a succession of changing positions, Ex. 67. Such a predominance of tonic harmony in one melody would be very monotonous were it not for the varied positions and inversions:

Ex. 67



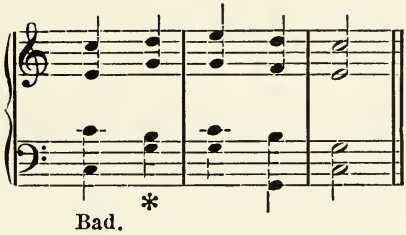
The harmonization indicated is not the best possible, but it illustrates the point of the lesson and is acceptable, because the second inversion of the tonic harmony occurs where the progression quality is needed—at the beginning of the cadence section.

82. It is usually better to change the harmony for a tone repeated on an accented beat. Since the scale-5th is a component of both I and V, No. 2 of Ex. 67 should be harmonized as suggested, with contrast of quality between the weak and strong beats. While the accented

tone of the third bar is a repeated I, the second inversion changes the quality from repose to progression. Incidentally, the changes provide a moving bass against the static melody.

a. **Observe** that $\overset{5}{\text{I}}$ is preceded by another I, and not V. The latter is possible when $\overset{5}{\text{I}}$ is a passing chord (Paragraph 111). A V root bass would anticipate $\overset{5}{\text{I}}$ and weaken a cadential I: Ex. 68. As a second inversion is rarely approached by leap from an inversion of another harmony, it is plain to be seen that $\overset{5}{\text{I}}$ cannot be preceded by V unless the former is a passing chord.

Ex. 68



b. Falling on the accent, the second inversion of any triad demands a chord of which the bass is root, so I demands $\overset{5}{\text{I}}$, *and in a cadence should not be weaker, rhythmically, than the following dominant.*

c. As seen in the preceding work, the bass of a second inversion falling on a weak pulse *usually* progresses by step.

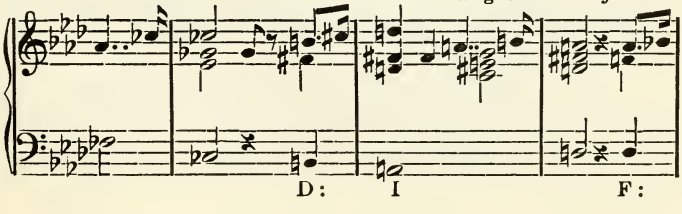
d. As the second inversion of the dominant triad on the accent would suggest a new tonic, if a modulation is not desired, counteract the feeling or demand by employing the seventh. This is not necessary on a weak pulse.

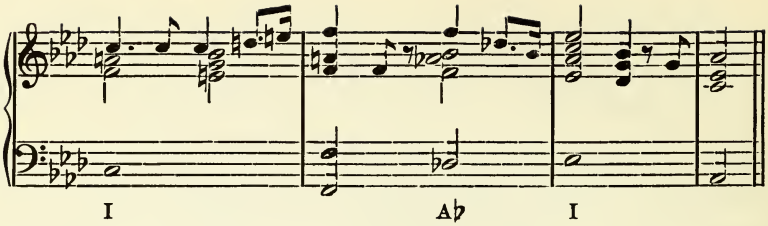
e. As with $\overset{5}{\text{I}}$, $\overset{5}{\text{V}}$ may be approached from any position of the *same* harmony, but it is usually better to approach it by leap *only from a root position of another* harmony. $\overset{5}{\text{V}}$ to $\overset{8}{\text{V}}$ is more pleasing than $\overset{3}{\text{V}}$ to $\overset{8}{\text{V}}$. Why?

Note Wagner's use of second inversions to affirm the new keys in Ex. 69:

Wagner: *Lohengrin.*

Ex. 69

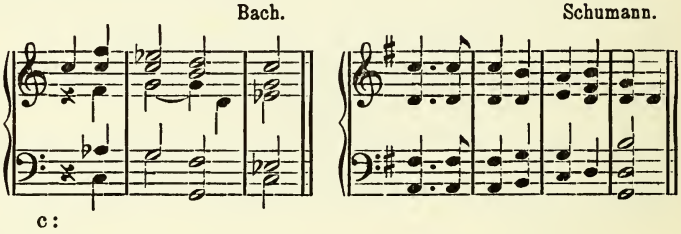




No. 2 of Ex. 70 shows a repeated second inversion of V, but the seventh being present, it does not assert itself as a new tonic. As the rhythmic progress is to the cadence section, the third of I is doubled in the outside parts. Rhythmically, it falls on the weak part of the bar and section, so it is not objectionable.

83. Second inversions are rarely *left* by leap except to the same harmony. Falling an octave is not considered a leap, because it is the same chord degree. In Ex. 70, the first chord is left by leap of a pure fifth, but the bass is Do, a tone that is free in its scale relation. Its nature as possessor of the entire key group is a stronger factor or element than its chord relation. The preparation of the root of the second chord also modifies the effect;

Ex. 70



a. Because the effect of second inversions is so unstable, they are seldom employed consecutively. In the excerpt from Bach referred to in the preceding paragraph, the primary harmonies, the relation of the outside parts, the doubling of the tonic and assertion of its harmony on the accent, all tend to preserve the tonality.

b. In the first excerpt of Ex. 207 there are three consecutive second inversions. They are justified by the sequence, but observe also the modified effect caused by the doubling, none of the chords having the bass doubled.

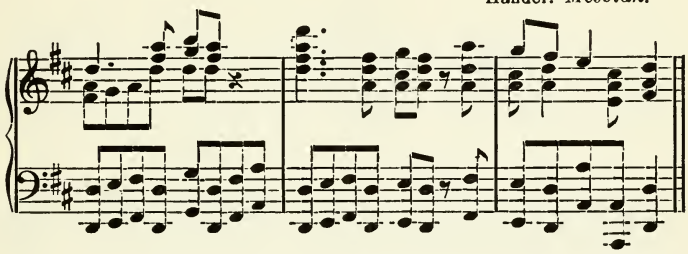
c. The doubling of I is affected by the duration. If it occurs on a weak beat, or if the duration is short, it is not so important that the bass should be doubled. Duration and accent are factors never to be ignored.

84. **The Movement of Parts.** In paragraph 63, it was said that two parts moving in unison gave a weaker effect, because it practically made one part less. If all of the parts are taken in unison, the passage is stronger, and parts are doubled (giving the appearance of five or more) when more strength or harmonic weight is desired. In this case there are consecutive octaves, doubled thirds, etc.

a. Consecutive octaves are also allowed when the second chord is another position of the first:

Handel: *Messiah.*

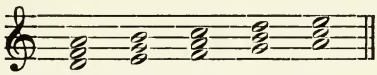
Ex. 71



b. Remember that consecutive octaves, fifths and fourths, are so considered only when they occur between the *same parts.* Consecutive unisons are considered the same as consecutive octaves.

85. In the previous lessons, consecutive pure fifths between outside parts were said to be undesirable. They are not unusual between middle parts, or between the two upper parts, but between the outside parts the lack of contrast is undesirable and the tonality is obscure unless the seventh is present. With a succession like Ex. 72, there is no feeling for key:

Ex. 72

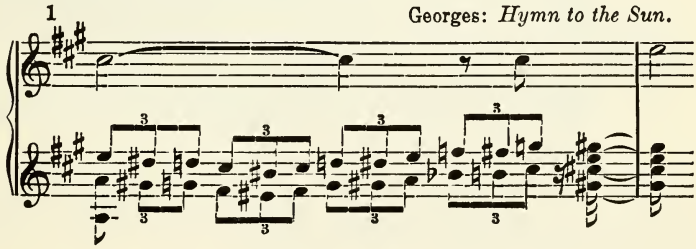


a. Like consecutive octaves, there is no objection to fifths when the second chord is another position of the first.

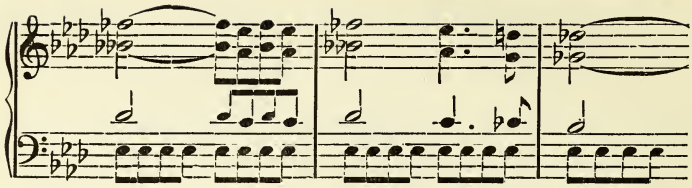
b. Consecutive 5ths are also considered good when moving by small 2nds, or against a pedal point:

Georges: *Hymn to the Sun.*

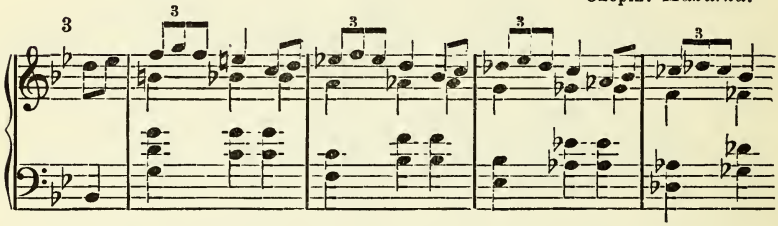
Ex. 73



2 Moret: *Preludes.*



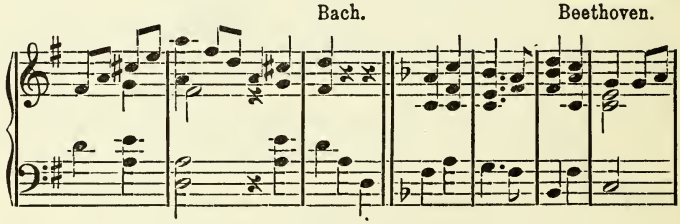
Chopin: *Mazurka.*



c. In example 3, the fifths between the bass and tenor are justified by the common tone, also by the sequence. The repetition of a seeming irregularity shows that the latter was not accidental, but intentional. Play this, following the sequence through the sharp keys back to the key of C.

d. The fifths between the bass and tenor of Ex. 74, No. 1, produce no disagreeable effect because the tonality is unmistakable; also because there is a common basic tone, and in the second chord the common tone becomes chord-5th, secondary in importance to its use in the preceding chord. The five parts of the chord falling on the accent cover the thinness that would be heard between the alto and soprano if the extra A were not there.

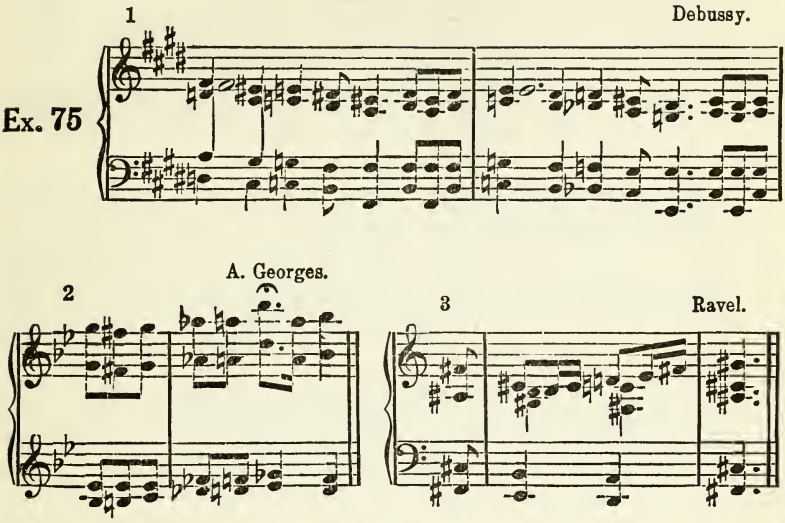
Ex. 74



e. At No. 2 the chord-5th is taken as root on the accent, but the fifths between the outside parts is exceptional. So-called irregularities are more often found in orchestral scores.

Again and again they have been found with all of the voices moving in the same direction, and the last 5th or the close of the passage taken by leap:

Ex. 75



A good composer employs anything that will express his ideas; but the student should first learn the natural, logical use of his music material, and not try to use for a simple text what experienced composers employ for tragic or lofty themes, subtle effects, and unusual conditions.

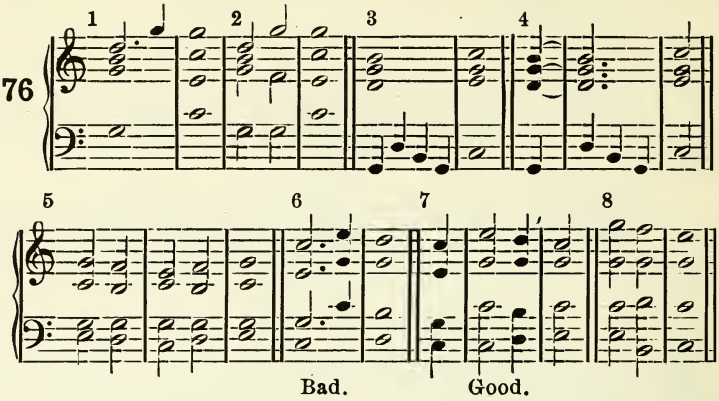
These examples are given, not for the student to imitate, but to show that, with all of their liberty, good composers follow certain principles, and have good reasons that a student might not understand until after much work and the analysis of the best music. The best working basis is the principle of relationship, especially to the *accent.*

The examples have also been given for the less experienced teachers who have been taught to think that the rules forbidding fifths were as binding as the ten commandments. Nearly all of the traditional rules were made for vocal music. As a matter of course they do not all apply to instrumental music. The timbre of different instruments produces effects that would be unpleasant for voices.

86. One should never lose sight of the relation between the metric accents of the outside parts. At Ex. 76 the impression of the first chord is not erased by the short duration of the first G in the melody and the fifths between accents. If the second note fell on the secondary accent as at No. 2, the impression of the first would be de-

stroyed, and there would be no effect of fifths. The same principle applies to the octaves of Nos. 3 and 4.

Ex. 76



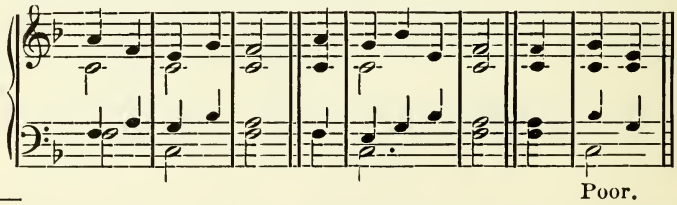
a. All theorists approve of fifths when the second one is diminished. Ex. 76, No. 5. The tonal principle back of the rule is that the fifths are not basic to basic, but basic to color. The fifths between the alto and soprano of the last two chords are good because the outside parts are basic and color, and the seventh is present in the V.

b. For the approach to an accented I, the contrary direction with two color or two basic degrees is sometimes preferred: Ex. 76, Nos. 7 and 8. Remember, this color principle applies to the selection of parts for *inversions* only. If the rhythm requires the stability of root basses, they should be employed, regardless of the color principle.

c. In its relation to the whole, a rhythmo-melodic group may require the strength and conclusiveness of root basses. In contrast to that, there are groups that require the lighter effect of inversions. *Unless taken in contrary direction*, the *basic and color relation for inversions is usually better than both color or both basic.*

87. The chord-3rd is rarely omitted, but on a weak beat it is sometimes replaced by the chord-7th:

Ex. 77



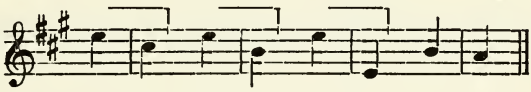
Some of the best theorists of the day have omitted all reference to covered octaves and fifths, because they were confusing. With the principle of rhythmic and tonal relations on which this system is based, any rule that might have seemed necessary is covered or embodied in principles that are musical and more far-reaching, so the discussion of covered octaves and fifths is quite superfluous.

Having heard the chord-3rd on the accent, the ear is satisfied, and the mental effect is carried over to the next beat because the latter is weak. Attention is drawn to the seventh which provides the color. If the metric arrangement were reversed, the effect would not be satisfactory. The accented beats demand the vital element of the harmony.

88. *Anacrusis* is the technical term applied to that part of a phrase beginning on the fractional part of a bar. Its purpose is to throw weight or emphasis on the following accented beat. For that reason, it is in good taste to employ inversions for the anacrusis, or to leave it unharmonized. The contrast accentuates the strength of the accented harmony.

89. To avoid the heavy, hymn-like habit of writing, fewer parts, rests and broken-chord accompaniment should be frequently employed. For example, No. 3 of Ex. 79. As the first accented harmony is I, the anacrusis may be left unharmonized. That would bring out the figure which is indicated by the brackets:

Ex. 78



a. As the anacrusis of the first figure is left unharmonized, unify the work by treating the next two in the same way. Incidentally, the entire first section is made lighter by the rests and inversion of V, in contrast to the duration and root basses of the cadence section. This is an example of the *qualitative* and *quantitative* elements and their relation to rhythm.

b. When the melody begins with a long note as in No. 4, it is well to let the other parts enter on the second beat. If less harmonic weight is desired for the first section, rests may be employed on the third beat of the bar. In employing rests, caré should be taken that they do not impair the rhythm. When the parts enter after the beginning as in the example mentioned, the metre is established at once.

c. When the rhythmic movement and melodic line is varied as in No. 6, and others of a similar nature, little is required of the harmony which may enter on the second beat and remain for the one beat only.

d. As stated before, the selection of harmonies and their inversions depends upon the rhythmic groups. In contrast to the cadence section, that preceding may be made lighter by the use of inversions, writing in a higher register, rests and fewer parts.

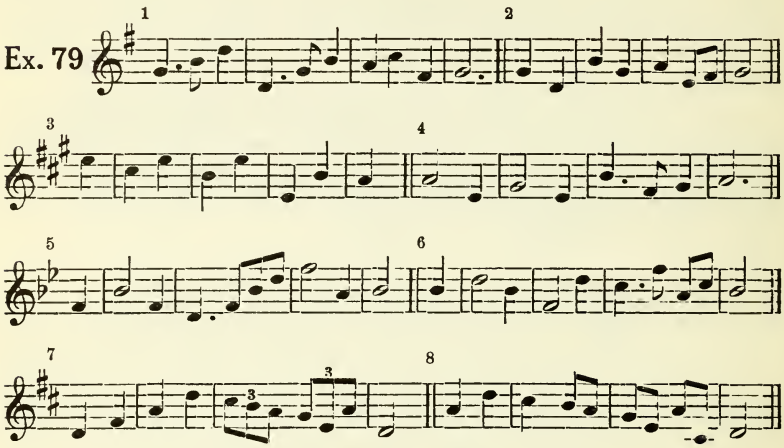
e. Harmonizing the melodies of Ex. 79.

First, mark the sections.
Second, find the harmonies for each *bar*, not each beat.
Third, select the inversions for I.

Fourth, select the bass notes for V that will lead to those chosen for I, and write the complete bass part.

Fifth, add the middle parts to all of the tonic harmonies first, then to V, again selecting the latter to lead to the parts of I as written. *With the recognition of the scale degree occurring in the melody, also comes the recognition of the chord degree, and the choice of the bass tone should be made simultaneously.*

Ex. 79



90. Melodies of eight bars usually consist of at least two well-defined phrases termed *antecedent* and *subsequent*, also *forephrase* and *after-phrase*. Like that of sections, one is stronger than the other, and so harmonized that there is more harmonic weight for the after-phrase, because it confirms or completes the idea.

a. There are three primary elements of contrast and unity: Rhythmic Setting, Melodic Line and Harmonic Treatment. In a melody of eight bars or more, these elements must always be considered. The cadences of the section groups should be less definite than those of the longer groups. If they are not so in the melody, then the harmony should produce that effect. In distinction to the "half-cadence", the section cadences are sometimes called "quarter-cadences", the terms showing the relative importance of the cadences in their relation to the whole.

b. Harmonizing the longer melodies, proceed as before. When the V harmony falls on the closing beat of the fore-phrase, it is sometimes termed a "half-cadence", also a "rising cadence", as the effect is equivalent to an interrogation point. As a rule, the root is preferred for the bass, and as the pause should be well marked, the chord should be a triad, not a seventh-chord, which destroys the pause.

c. In the Folksong of Ex. 80 there is a melodic and rhythmic sequence. The first section group would naturally be harmonized with $\overset{8}{\text{I}}$ and $\overset{3}{\text{I}}$. If a harmonic sequence is desired also, the second section would be $\overset{8}{\text{V}}$-$\overset{3}{\text{V}}$, bringing an inversion at the close of the fore-phrase instead of the root bass as suggested in the foregoing paragraph. The student should decide which is most important: the sequence or the root bass.

d. Harmonizing the melodies of Ex. 80, do not forget to write the complete bass *first;* and that *within the phrases* the continuity *usually* requires some inversions, especially on the accented beats.

e. If the harmony changes but once in a three-pulse measure, it is usually better to change on the third beat in preference to the second. In most of them, one harmony presides through the bar.

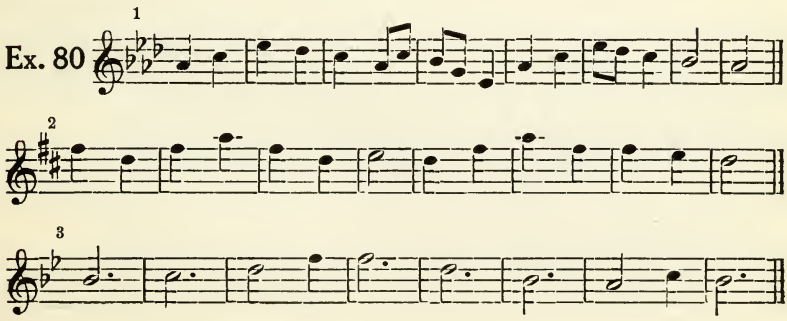
f. If both of the outside parts leap across the bar, it is better to leap to degrees of the same harmony.

g. Excepting the close of a phrase, a long note in the melody is an invitation for movement in at least one of the other parts, especially if the long note falls at the close of the section which should have less of the quantitative element produced by the duration. If there is continuous motion in the melody, the bass should include long notes to mark the phrases.

h. If the melody moves by leap or is decorative in line, to provide a suitable back-ground for it, the bass should be more static and written with less melodic interest.

i. At this stage of the work it is necessary for the student to form the habit of scanning the melodies and feeling the harmonic substructure with the sight-singing. For this reason, it is unnecessary to write four parts for all of them. The bass should *always* be written, and a very simple chord accompaniment which *includes* that bass, played. The student *must* acquire the *synthetic habit* if musicianly work is done.

Ex. 80



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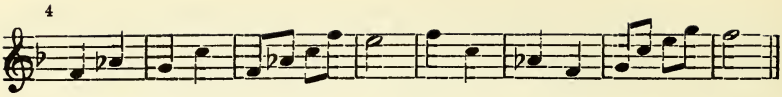

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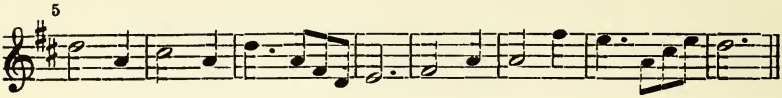

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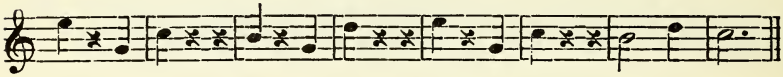

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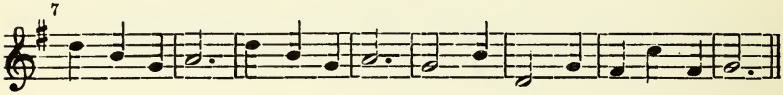

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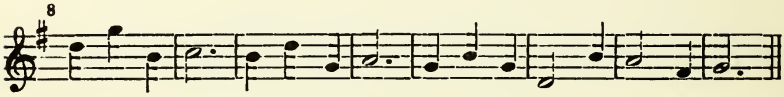
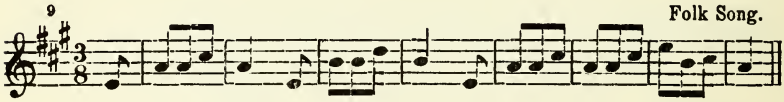
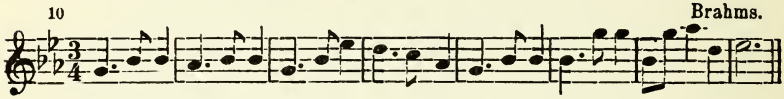


9 Folk Song.



10 Brahms.



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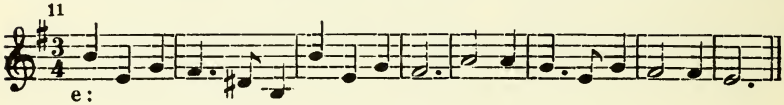

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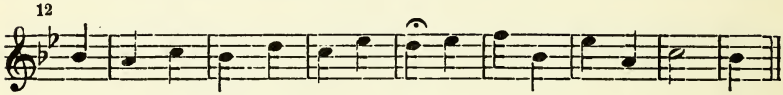

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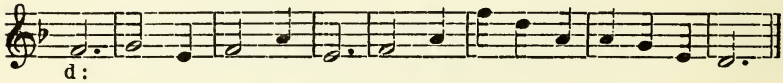
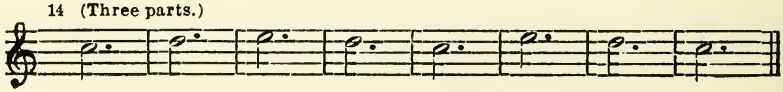


14 (Three parts.)



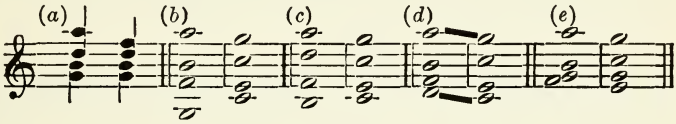
91. **Dominant Ninth.** In its relation to Sol (the generator of the action group), La, the scale-6th, is a ninth; Ex. 47. What is the natural resolution of scale-6 ?

a. Employing but four parts, one of the basic degrees of a V9 will be omitted. If the root is present, the fifth will be omitted, and *vice versa.* The root is frequently omitted in the inversions.

b. Instead of resolving on the root, the chord-9th sometimes progresses to the chord-3rd; No. 9, Ex. 83. In such a case, the third is not present with the ninth. All chord degrees above the fifth are said to be *dissonant.* When the resolution of a dissonance is a color degree, the latter should not be present with a dissonance. For that reason, the chord-3rd is not heard with the ninth in the example mentioned.

c. The seventh should always be present with the ninth unless the ninth-chord is followed by a seventh-chord on the same degree as at (a), Ex. 81:

Ex. 81

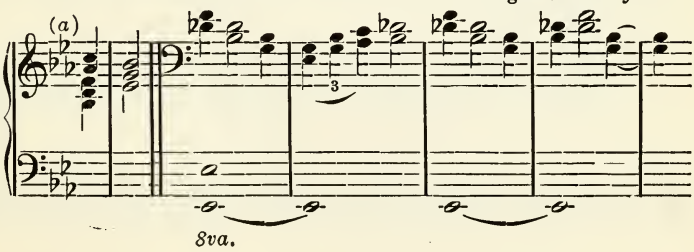


d. Attention is called to the consecutive fifths between the two upper parts at (c). They are not objectionable because the tonality is not obscure, and the three color elements prevent any barren effect that would be present without the seventh and ninth. In the outside parts, (d), they *are* disagreeable.

e. Wagner used the full V9 for the motive of the Rhein-Maidens; Ex. 82, (a). In the second excerpt, it will be observed that at times the chord-3rd is absent. In addition to the sustained bass, the melody exhibits its harmonic source and the occurrence of the chord-3rd on the accented beat of the second bar preserves the impression for the remainder of the bar;

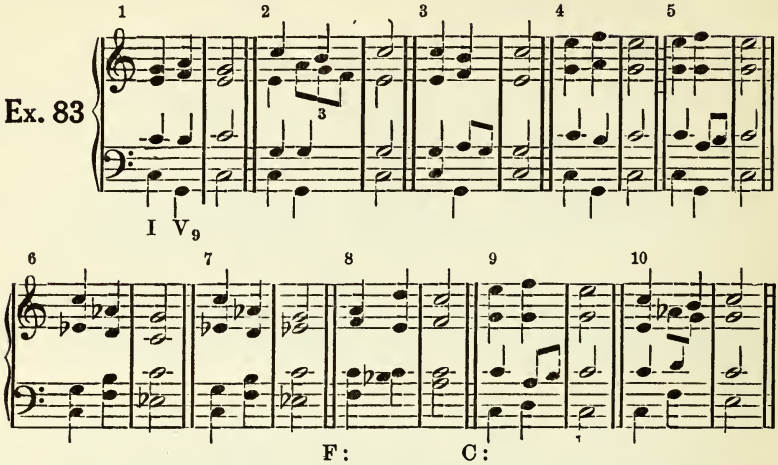
Wagner: *Rheingold.*

Ex. 82



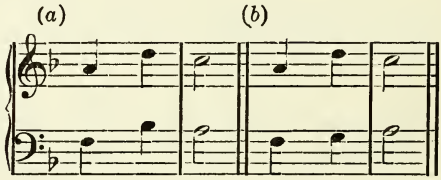
f. Mark the chord degrees of the outside parts of Ex. 83, and transpose the patterns at the keyboard:

Ex. 83



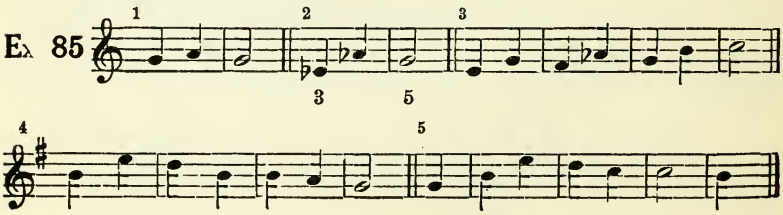
92. Harmonizing 3-6-5 of scale, there is no question as to the choice of inversion for V. At (a), Ex. 84, the outside parts both leap a fourth in the same direction, but having the relation of color and basic the arrangement is good. At (b) the relation of fifths taken in the same direction is not desirable, especially with the large leap above the step-wise progression:

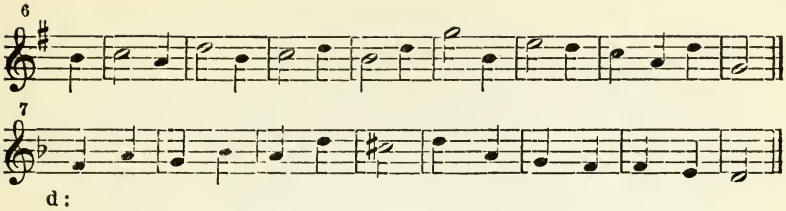
Ex. 84



a. Because the nature of V9 is what it is, a longer duration is more effective than the short. Harmonize the following, employing scale-6th as a V9:

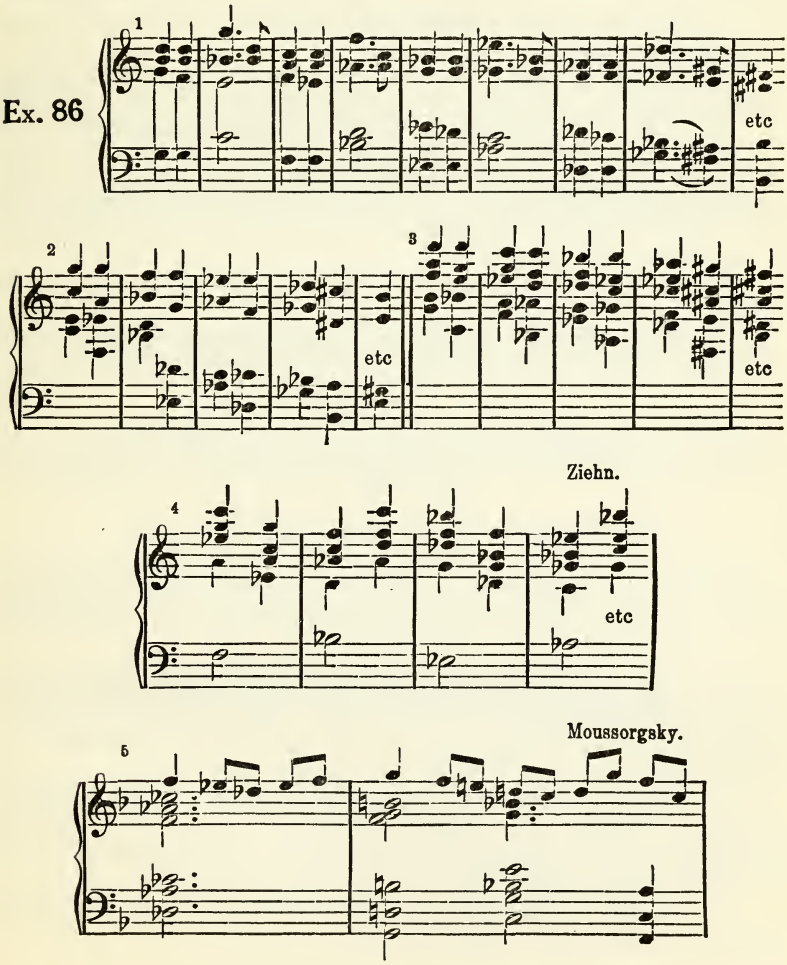
Ex. 85





b. Note the common tone in these ninth chords, and play them without notes:

Ex. 86



Facts to Remember.

The melody itself exhibits its harmonic source.

One must hear the different scale degrees of the melody.

One must think and hear in nothing less than section, and compare section with section, also phrase with phrase, for the intelligent employment of elements of unity and contrast.

The relation of rhythmic groups to the whole.

I possesses a dual nature.

5

Second inversions are seldom left by leap except to the same harmony.

A second inversion is rarely approached by leap from an *inversion* of another harmony.

The second inversion of a triad falling on the accent asserts itself as a new tonic.

The harmony falling on an accent should not be anticipated on the preceding weak beat.

Basic relations of the outside parts should not move the same distance in parallel motion.

For inversions, the relation of basic and color degrees is usually better for the outside parts.

Consecutive fifths are heard less when the seventh is present, and when one part is the alto.

Harmony falling on the accented beats makes the deepest impression, especially if it is the beginning of a section or phrase.

CHAPTER V.

The Subtonic and Subdominant Harmony.

93. What type of triad is built on the large scale-7th the subtonic? On the small subtonic? What species of seventh-chord is found in the major key? In the minor?

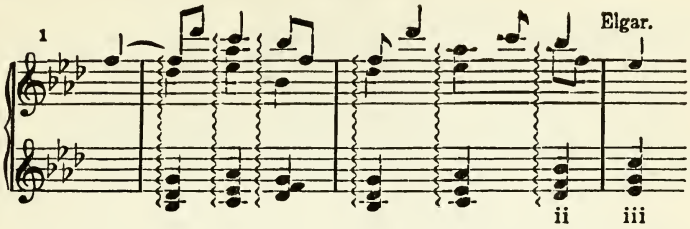
a. As a tone generates a pure fifth and large third before it generates a small third, it is evident that the root of a diminished triad is not the harmonic generator, but the *third.* That is the reason the subtonic chord in the diminished mode is so often called a dominant without the root.

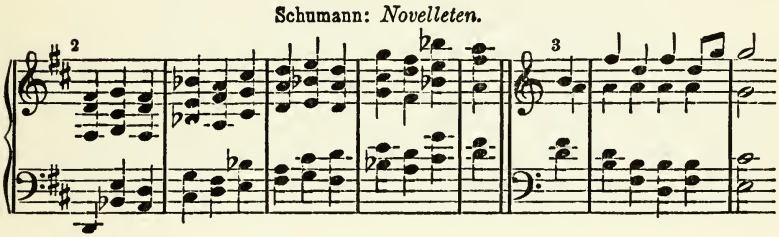
b. Because the root and fifth are dissonant, they are rarely doubled in four-part writing. In relation to the harmonic generator, the root and fifth are the color degrees (3rd and 7th), and the doubled tone is fifth from the generator.

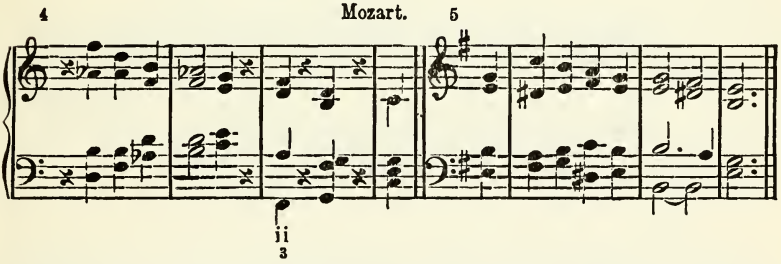
c. As the nature of the subtonic chord in a major key is the same as V, it bears the same relation to cadence.

Mark the outside parts of the following:

Ex. 87

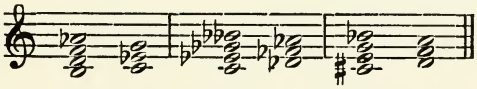






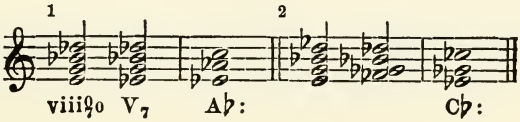
94. Take each tone within the octave as root of vii$^{\circ}_{7}$o and resolve to i; add a diminished 7th to that and carry the sequence through the octave, making enharmonic changes where necessary.

Ex. 88



95. Another interesting means of effecting a modulation is to convert vii$^{\circ}_{7}$o to V7 by lowering one tone a small 2nd resolving to I.

Ex. 89

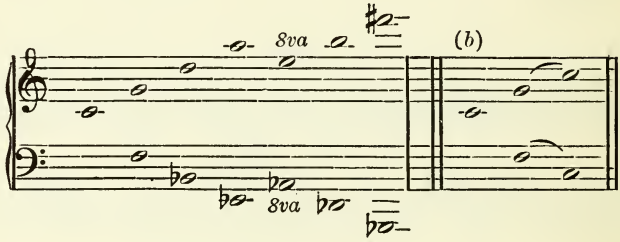


96. As stated before, nearly every principle of writing can be learned with the use of V7 and I. For that reason, also to deepen the mental impression of their various effects and to acquire the ability to hear both the scale and chord relations of the material of music, no other harmonies have been introduced up to this time. To make an eight-bar melody interesting with only two harmonies requires skill and taste, just what the student should cultivate first, last, and all of the time.

a. There is no reason why the non-chordal tones should not be considered before introducing another harmony, but to vary the work a little, the Subdominant harmony is introduced at this time.

97. In Ex. 19, the tonic was referred to as a "tone-center". As such, the tetrachords move in contrary direction to that center. Following the same principle in harmonic relations, assume as a matter of experience independently of any theory, that the generating circle of fifths applies in both directions as at Ex. 90. With the continuous progress of fifths obtained by considering each one as a generator, we have the series given in this example, the series being complete when the fifths meet enharmonically at F♯ and G♭:

Ex. 90



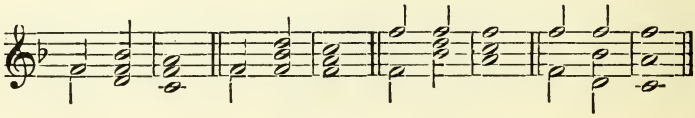
a. If, instead of the continuous progress, any one of these fifths *resolved*, it would resolve on its generator, up or down a pure fourth (b), and the tonic would be approached from opposite directions as in the tetrachords.

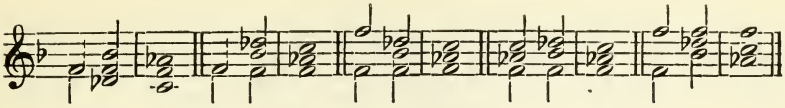
b. As the third of IV is also a down-leader, the tonal tendency of the chord is unmistakable.

c. The cadence, IV-I, is called the "Plagal Cadence," in distinction to the "Authentic Cadence", V-I.

d. In class, all sing the tonic, and different members the various degrees and the resolution of IV, as at Ex. 91. If working alone, play two parts and sing the other:

Ex. 91





e. As 7th of V, Fa (the scale-4th) usually resolves on Mi, chord-3rd. As *root,* Fa is free to move up or down by step or leap. When it is doubled, one part must necessarily move by leap, or in contrary direction.

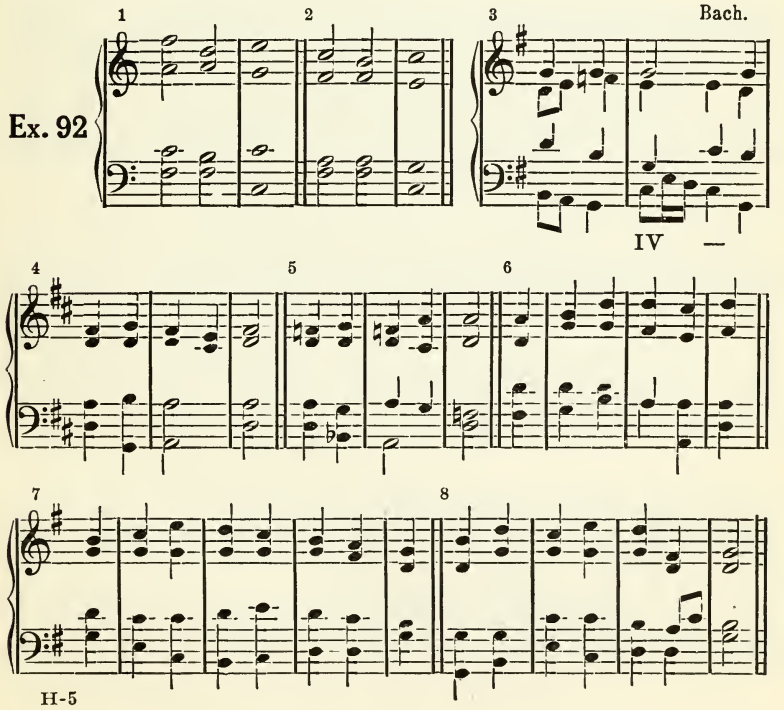
f. The accented second inversion of I demands V. By including the small seventh in the tonic harmony, it will demand IV. Why?

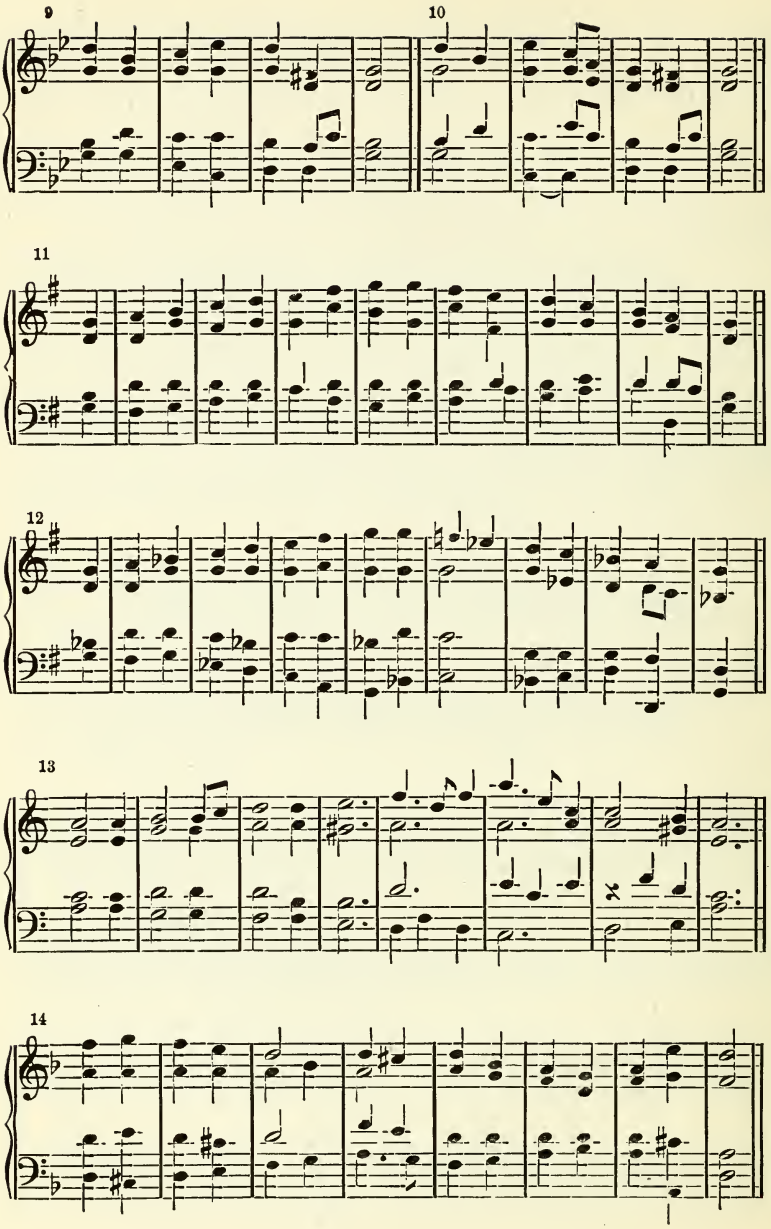
g. VII following IV makes a very effective cadence: Ex. 92, Nos. 1 and 2. The doubled fifth in the latter is good because it was prepared on the preceding accent.

h. As nothing of musical value is written without non-chordal tones, IV will not be applied in the harmonization of melodies until after the non-chordal tones have been introduced.

98. Mark the chord degrees of the outside parts of the following and transpose them at the keyboard:

Ex. 92




9
10
11
12
13
14

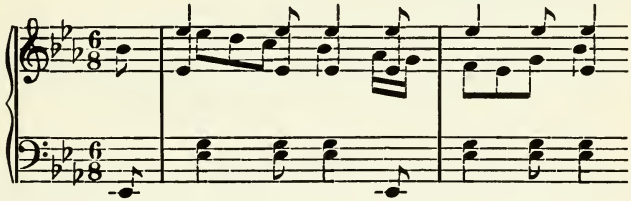
CHAPTER VI.

Bytones.

99. The preceding melodies were constructed of harmony tones only; that is, every tone was a component of the underlying harmony employed. The best music includes a free use of non-chordal tones, known as "*Bytones*." For example, Brahms employed the tonic harmony for the entire scale:

Brahms: Op. 117.

Ex. 94



100. The various kinds of bytones are classed as **Auxiliary, Passing, Anticipation, Appoggiatura** and **Suspensions.**

The author is well aware of the difference in terminology respecting the non-chordal tones, especially in the use of the word *Appoggiatura*. "When Doctors disagree, who shall decide?" The most comprehensive or significant term should be used, but the main point is to know the character and governing principles of the embellishments.

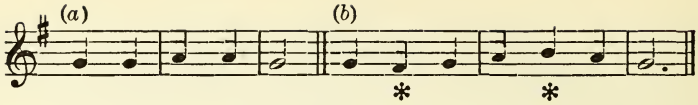
They are introduced at this time because they occur in simple, short melodies. One should begin to use them while the harmony is easy, and have the advantage of using them through the remainder of the work. All there is to know about them can be learned in connection with the tonic and dominant harmony, and it is much easier than it would be later with more complex harmony.

The habit of harmonizing every note results in heavy, uninteresting work that could never be used in a good composition, so it is a *bad* habit. Even if first impressions were not the most lasting, it is a waste of time to do any work that could not be embodied in something larger and more important.

The early use of the embellishments or non-chordal tones is both possible and natural when one works from the melodic and rhythmic basis. Intelligent, desirable results necessitate thinking in large, rhythmo-melodic groups that must include bytones. All of the great masters from Palestrina to Debussy were trained in Counterpoint first.

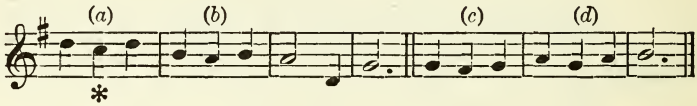
101. The melody at (*a*) contains harmony tones only; at (*b*) there are bytones in the first two measures, neither of them disturbing the harmony in the least, or creating a feeling for a different harmonization when sung at the normal tempo. (Ex. 95.)

Ex. 95



102. A bytone returning to the same harmony tone that precedes it, like those of the foregoing example, is called an *Auxiliary.* When it is *above* the harmony tone, it is usually diatonic; if it is *below* the harmony tone, it is generally a semitone, and may be either diatonic or chromatic. If the auxiliary is an up-leader, like (*c*) of Ex. 96, a chromatic is unnecessary; if the auxiliary is a down-leader (*a*), or a repose tone (*d*), a chromatic semitone may be employed to give direction to the melodic line, so to speak.

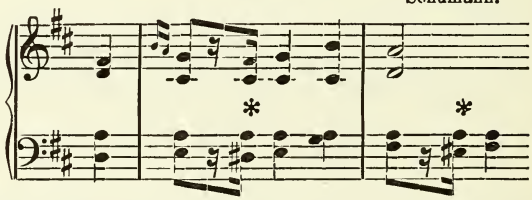
Ex. 96



103. Auxiliary tones may be employed in more than one part, provided that characteristic tones of the harmony are retained in the other parts. In the Schumann example the identity of the chord is preserved by the root and third.

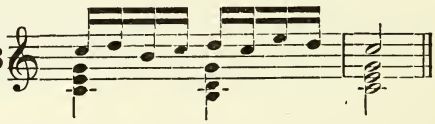
Schumann.

Ex. 97



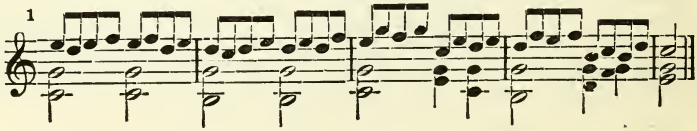
104. When an auxiliary tone leaps to another auxiliary on the opposite side of the harmony tone and then returns to it, the two are called *Changing Tones:*

Ex. 98



Mark the auxiliaries in Ex. 99, indicating with a dash through the note or by the letter *a:*

Ex. 99

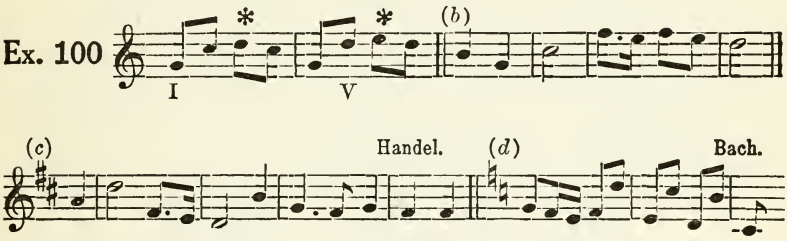


An abundance of good material may be found in Bach, Haydn, Mozart, Handel, and others of the classical period.

105. Although it is a dissonance, the 9th of the dominant harmony is not considered a bytone because it is generated by the dominant root. As the ninth-chord of other harmonies does not correspond to the harmonic series given by nature, when occurring in other than the dominant harmony the ninth is considered a bytone. The small 9th in a major key is regarded as chromatic, but not in a minor key. As the 6th of the scale it is diatonic in the minor mode.

106. Reference has been made to the progression of a melody after long leaps. The suggestion does not apply to the interval between two phrases, or to a long leap followed by a bytone. For example, in the following, D of the first measure and E in the second are both auxiliary tones, and as such, the progressions are good:

Ex. 100

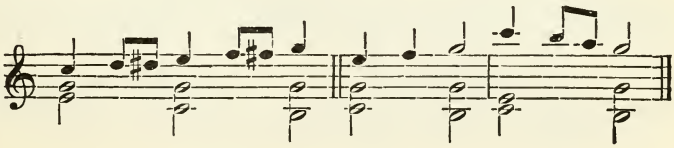


a. After a leap which makes a cadence, especially if the latter is sustained longer than a beat, the new rhythmic group may begin with another leap in the same direction (b), Ex. 100. The duration of C, also the fact that both C and the following F are taken on accented beats as well as belonging to different sections changes the whole effect.

b. If the last note of a leap is sustained for two or more beats, the direction is then free. Why? Sometimes the melody tone that would logically occur is taken in another octave, (c) and (d).

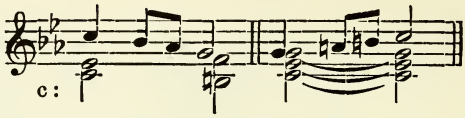
107. When a bytone moves by step to *another* harmony tone instead of returning to the first one, it is called a *Passing Tone.* It may be chromatic or diatonic, and may resolve on a tone of the same harmony, or of another one:

Ex. 101



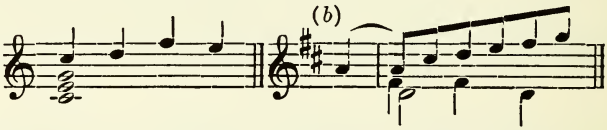
108. In the minor key the melodic form is generally used to avoid the augmented 2nd between the 6th and 7th of the scale:

Ex. 102



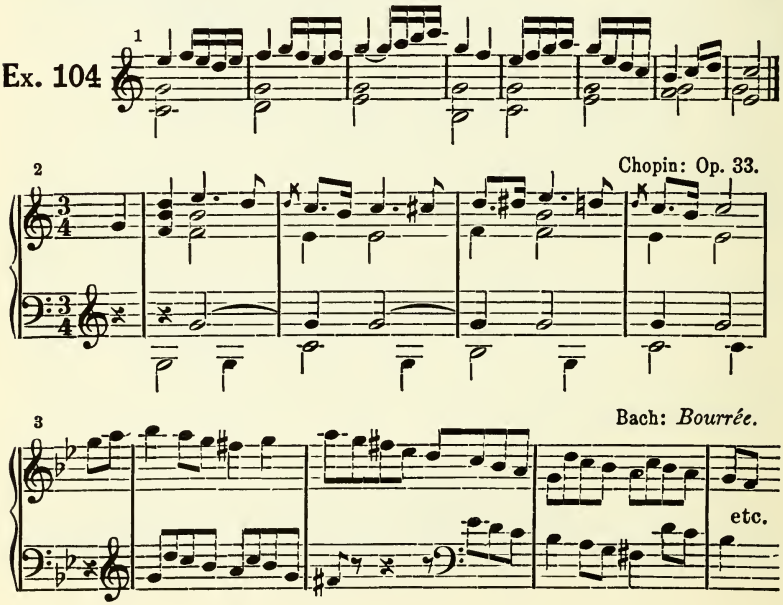
109. The only case in which a passing tone may be left by leap, is when the two harmony tones which it connects are at a distance of a 3rd, and the passing tone, instead of moving directly to the second harmony tone, leaps to the other side of it and then resolves. Sometimes there is an elision of the scale-6th in passing from 5 to 8 (b).

Ex. 103



110. Both passing and auxiliary tones may fall on the accented or unaccented part of the measure. In marking the chords for analysis, no account is taken of the bytones; that is, the letters indicating the chords are the same as though there were no bytones. Mark both passing and auxiliary tones of the following:

Ex. 104



111. Passing tones may occur in two or more parts. Passing chords are those in which all or enough of the tones to give character to the chord are bytones. There are two kinds of passing chords—those which might be considered independent chords, Ex. 105 (a), and those which would have a different resolution if they were independent. Just when the first kind should be so considered is a matter determined by the tempo. If the tempo is so fast that the harmony is not disturbed, the chord is heard as a passing chord. If the tempo is slow enough for the chord to be heard as a definite, independent chord, then it is not considered a passing chord.

Ex. 105

1 Handel.

(a)

2 Bach.

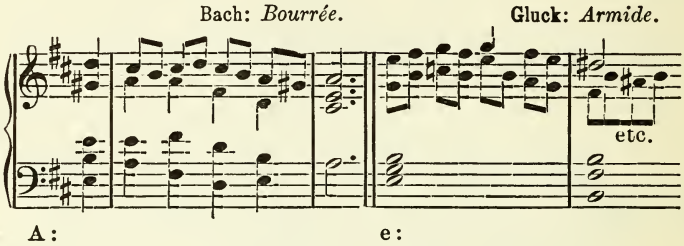
3 Bach: *Bourrée.*

tr

8va

112. Consecutive fifths are not considered objectionable between other than the outside parts when one tone of each is a bytone. They are frequently found in the works of the best composers, and one will notice that they are usually of short duration and in the unaccented places of a phrase. It has also been observed that they are more agreeable in the lower register than in the higher, where the effect is too thin.

Ex. 106



113. Harmonizing melodies, first, hear the harmonic regulation that is in the melody, marking the sections as in the preceding lessons, *not* forgetting that the rhythmic accents are more important than any individual tone of the melody. Bytones occurring on the accent are much more effective than on the weak beats.

a. Observe the general character of the melody: vigorous, light, serious, etc., also the tempo. The longer one harmony presides, the faster the tempo; conversely, the slow tempo requires more changes of harmony, or of positions.

b. Write the final cadence chords first, then, with the use of bytones, each part can be of melodic interest as it is directed to the cadence. This will help to make phrase-wise thinking unavoidable.

c. In keeping with the spirit of the melody, the accompaniments can be varied by broken chords, rests and fewer parts. See Mozart, Mendelssohn and other classics for examples.

d. Rhythmic and melodic imitation or repetition of the parts is always in good taste and provides practice in one of the essentials of composition. Rests mark the rhythmic groups more definitely, also focus the attention on the remaining parts. If there are rests of *more* than one beat in the melody, at least one of the other parts should be written with more melodic interest. Rests after a climax heighten the effect.

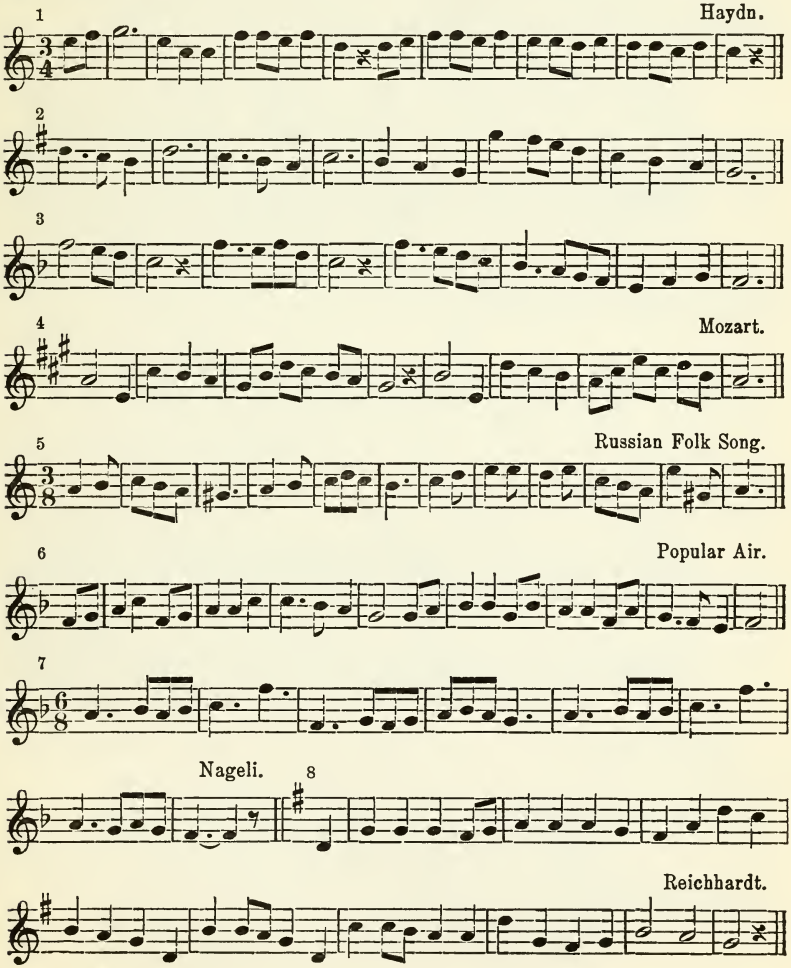
e. The greater the melodic interest, the less necessity for variety of harmonic treatment. Since embellishments are for decorative purposes, the effect is lost if the remaining parts are not sufficiently obscure and simple to form a background for them. It is very easy to over-decorate and overload with various harmonies.

f. It is not usual to double a bytone, but should it be necessary, let one of them resolve regularly and the other in a contrary direction.

When is it necessary? When two parts move in a contrary direction to a vital rhythmic accent.

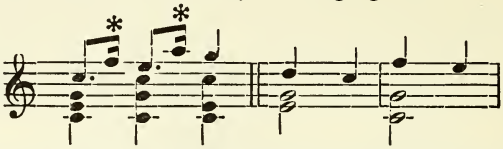
g. Notice the contrast of phrase and section in the longer melodies. The Russian songs are interesting with the two, three-measure phrases balanced by one of six. The harmony of a three-measure section has the same rhythmic relation as that of a three-pulse measure, *the change occurring on the third, in preference to the second.*

Ex. 107. Melodies for Passing and Auxiliary Tones.



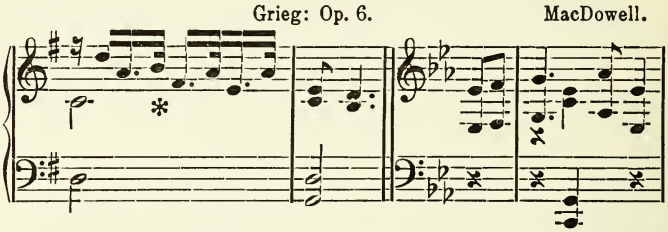
114. A bytone taken by leap is called an *Appoggiatura.* It may be taken above or below the harmony tone, but in either case moves by step to resolution, unless followed by a changing tone:—

Ex. 108



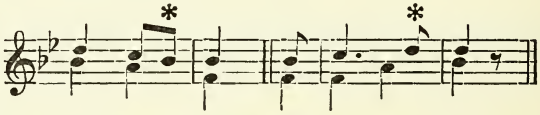
115. A bytone *left* by leap and *foreign to the following harmony* is called a *Free Tone:*—

Ex. 109



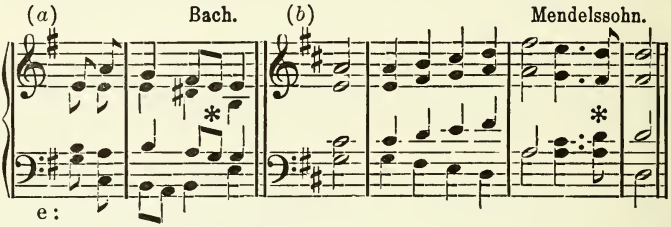
116. When one or more of the voices resolves prematurely, the effect is known as *Anticipation:*—

Ex. 110



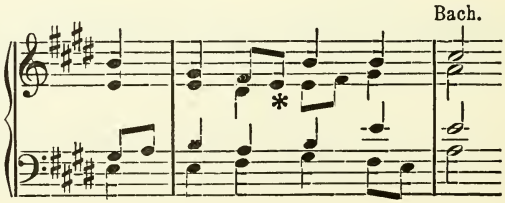
At (*a*) Ex. 111, both root and 3rd are anticipated; at (*b*) the complete chord is anticipated:—

Ex. 111



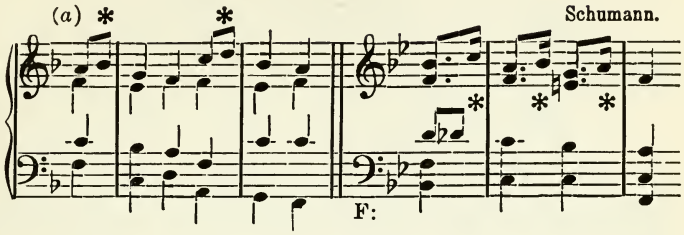
Occasionally, a tone is anticipated in one voice and taken in another:—

Ex. 112



117. When the anticipation tone is *left by leap*, it may be termed a *Free Anticipation*:—

Ex. 113



At (a), the B♭ anticipates the 7th of the next chord. D, the last tone of the first full measure, is a free bytone, since it does not occur in the following chord. The anticipation tone is usually shorter than the tone that follows.

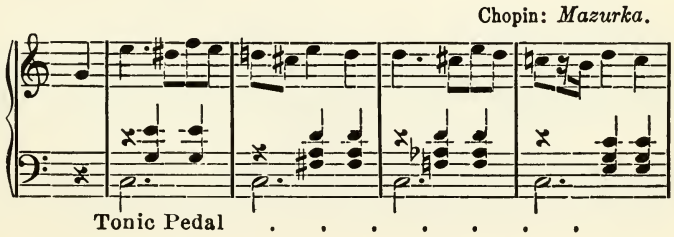
118. The **Pedal Point** (also called Organ Point) is a tone sustained by one part through a succession of harmonies of which it forms no part. It may be other tones of the scale, but it is oftener 1 or 5, and sometimes both.

a. A Pedal Point should enter and close as a harmony tone, and it is better entered on the accent at the beginning of a phrase. It may occur in any part, and in modern music is sometimes the only thread that holds a passage together.

b. Occurring in the bass, it produces a more tranquil effect and serves as an excellent background for an elaborate melody, or one with wide leaps. In orchestral compositions one hears the *pedal chord* against which themes are played.

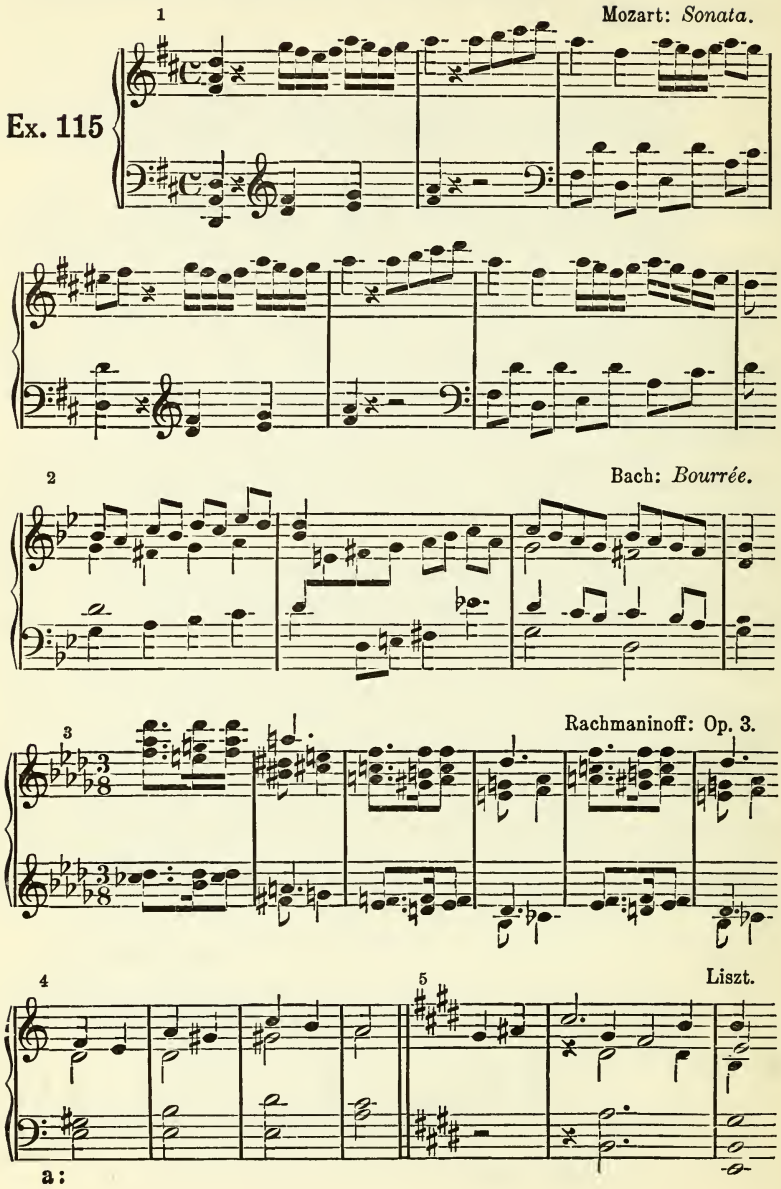
c. When the pedal forms no part of the chord above it, the next tone above the pedal is regarded as the bass and the chords are marked without reference to the pedal. The latter may be indicated by the letters T. P. (tonic pedal) or D. P. (dominant pedal), followed by a line continuing as long as the pedal lasts.

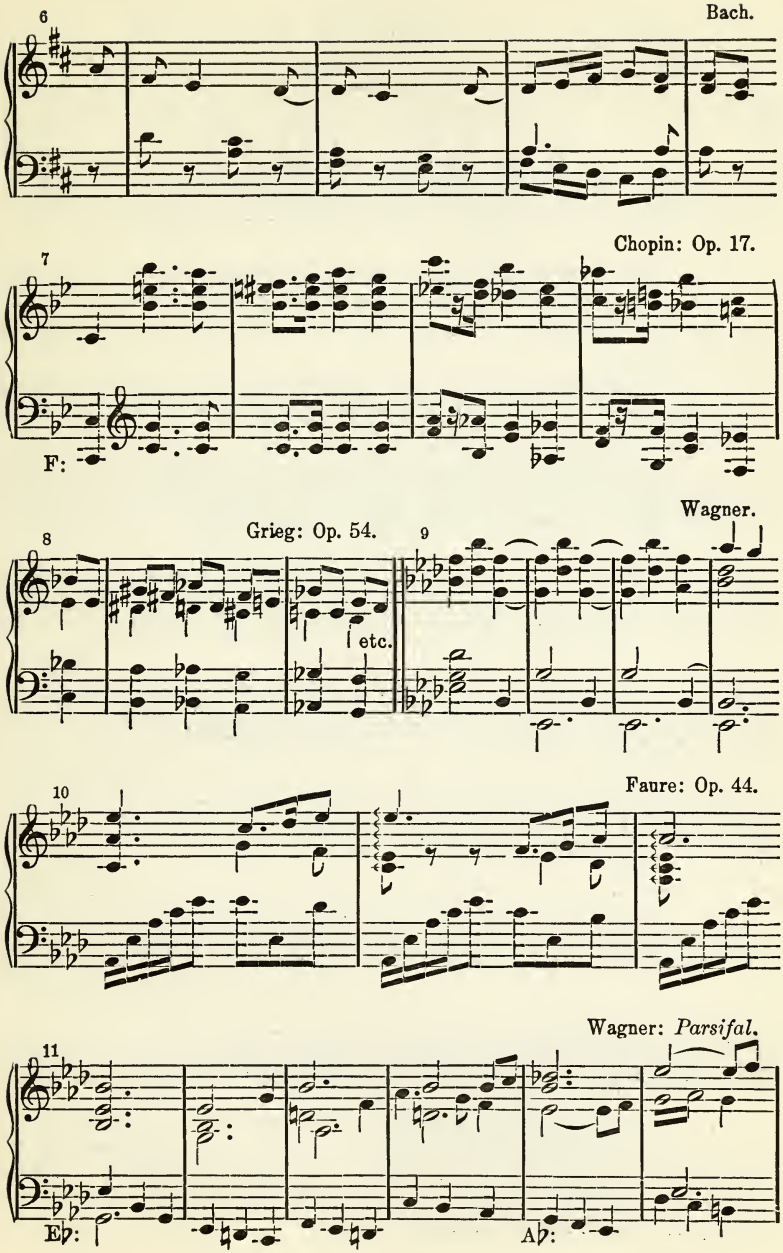
Ex. 114

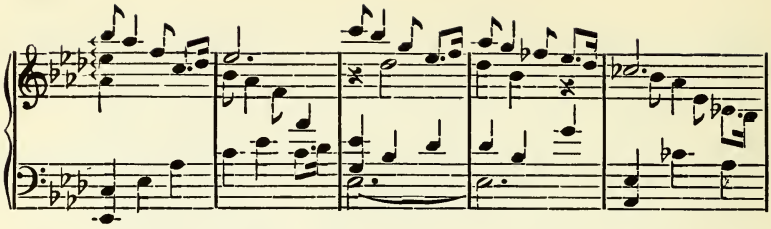


Mark the various bytones in the following:

Ex. 115



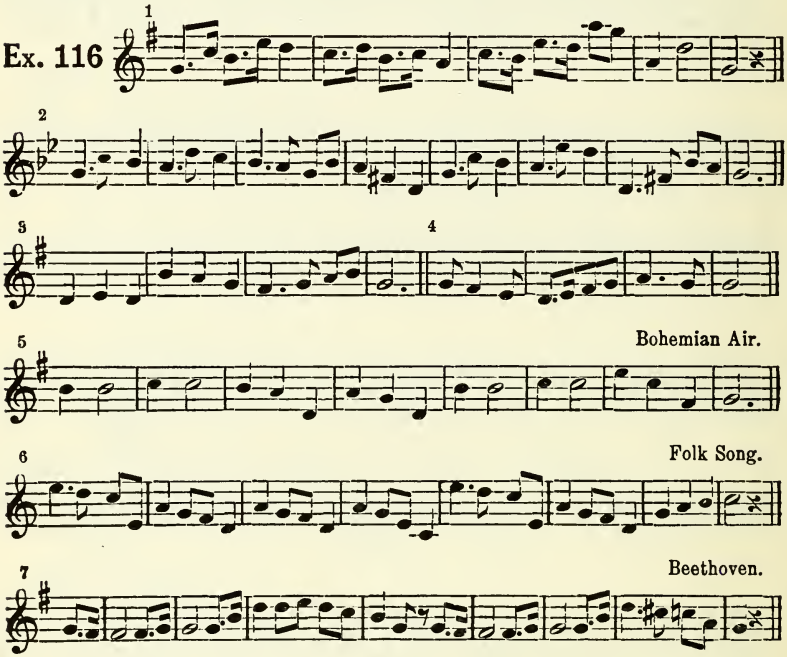

6
Bach.
7
Chopin: Op. 17.
F:
8
Grieg: Op. 54.
etc.
9
Wagner.
10
Faure: Op. 44.
11
Wagner: *Parsifal.*
E♭:
A♭:



119. Although free tones are seen occasionally, in the harmonization of melodies, *tones left by leap larger than a 3rd are better taken as harmony tones*, not bytones. In other words, bytones are better *taken* by leap than *left* so.

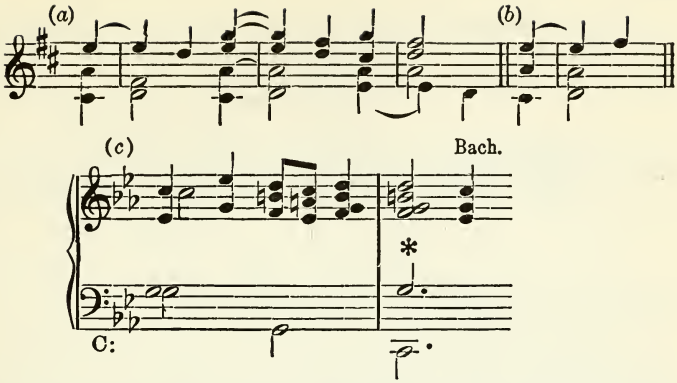
120. Harmonize these and write others, both modes, including various bytones. Write a broken chord accompaniment for No. 6.

Ex. 116



121. Suspension is just the reverse of anticipation, being carried over to another harmony in which it is foreign. In other words, the anticipation tone enters *before* the chord to which it belongs, and the suspension enters *after* the chord to which it belongs,—a belated resolution, as seen in the following examples:—

Ex. 117

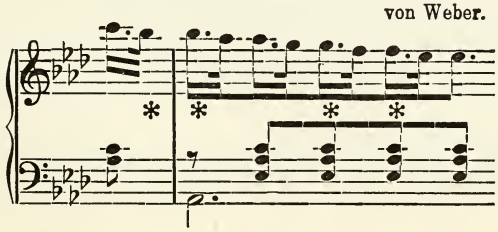


The foregoing excerpts show that suspensions *resolve diatonically*, *usually* downward. The upward resolution is sometimes termed "Ritardation" (*b*). Some theorists use the term "ritardation" for a suspension left by leap. The upward and downward resolutions are sometimes referred to as "superior" and "inferior" resolutions. Lavignac uses the term "prolongation" for a suspended dissonance. The effect of a suspension is to broaden, especially if the movement itself is dignified and tranquil. It sometimes adds a certain degree of severity. Like other dissonances, suspensions may occur in one or more voices (*a*), and there may be a *rhythmic suspension* of the entire chord (*c*).

Some theorists say that a suspension occurs over a triad only; that if the 7th is present, the dissonances above the triad are components of the chord and *not* suspensions. In either case, a harmony tone carried over to another chord in which it is foreign, produces the *effect* of a suspension and must be so considered in a work that does not consider 11ths and 13ths. The important thing is to know what to do with material, regardless of its classification.

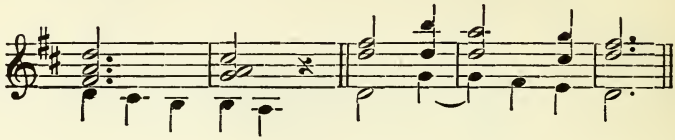
122. A suspension should be a harmony tone in the preceding chord, such tone being called the "*Preparation.*" The preparation must be in the *same voice* as the suspension, and on a *weaker pulse.* It may be tied or repeated; if tied, it is usually as long as the suspension. In Ex. 118 the notes marked by the asterisk could not be *preparation* tones, because they are *bytones.*

Ex. 118



123. As stated in a previous paragraph, a tone in the bass may be carried from the weak pulse to the accented when it becomes a bytone, or a dissonant chord degree:—

Ex. 119

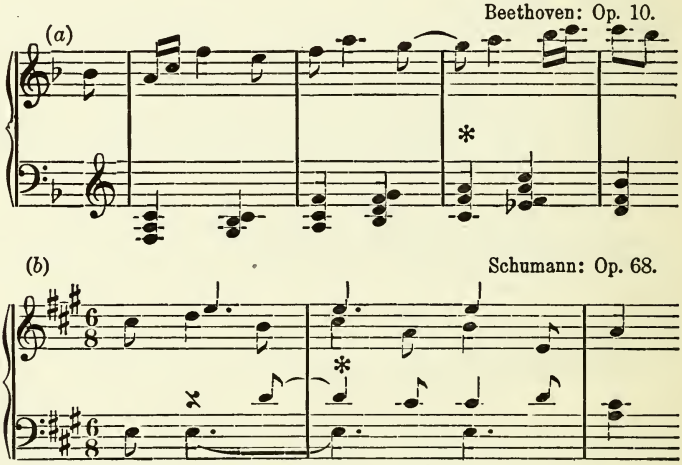


124. A suspension is rarely less in length than the resolution, and should be *stronger rhythmically.*

When a suspension resolves on the chord-3rd, the latter should *not be present with the dissonance.*

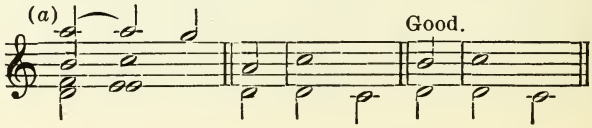
The next example (*a*) shows an exception to the rule because the two voices are in unison; at (*b*) there is an exception because of the sequence in the alto. All rules may be suspended in sequences.

Ex. 120



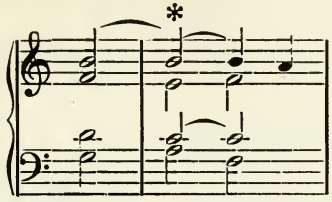
The root may always be present with the dissonance, and occasionally the 5th. Sometimes the chord-3rd is doubled in preference to the resolution (*a*). The tone on which a suspension resolves may be heard at a distance of an octave below the suspension, but should not be heard above it, unless approached by step in contrary motion:—

Ex. 121



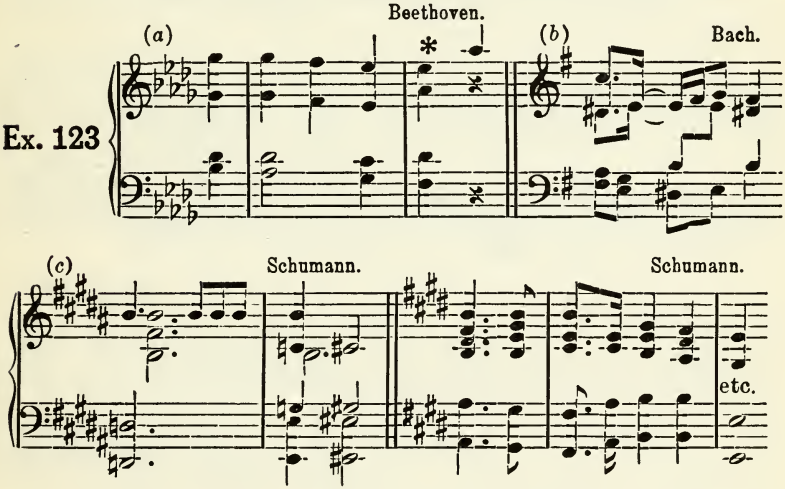
125. A suspension is one of the most effective embellishments in use. It is more distinct if the remaining parts are static while the suspension resolves, but the bass may change with the resolution, the latter becoming a component of another harmony:—

Ex. 122



a. Sometimes, instead of resolving by step, the suspension falls to its generator, or its fifth, as in the following examples. At (a) the suspended fifth moves *up* to its generator.

Ex. 123



At (b) the suspended seventh falls not to its generator, but to the tonic root. Observe the metric weakness of the latter chord.

At (c) the suspended tonic falls a seventh to its generator. This is good, not only on account of the overtone relations, but because the nature of Do, the tonic, is what it is, giving it freedom of movement. 1, 3 and 5 of the scale possess a freedom that is not felt with the other degrees of the scale.

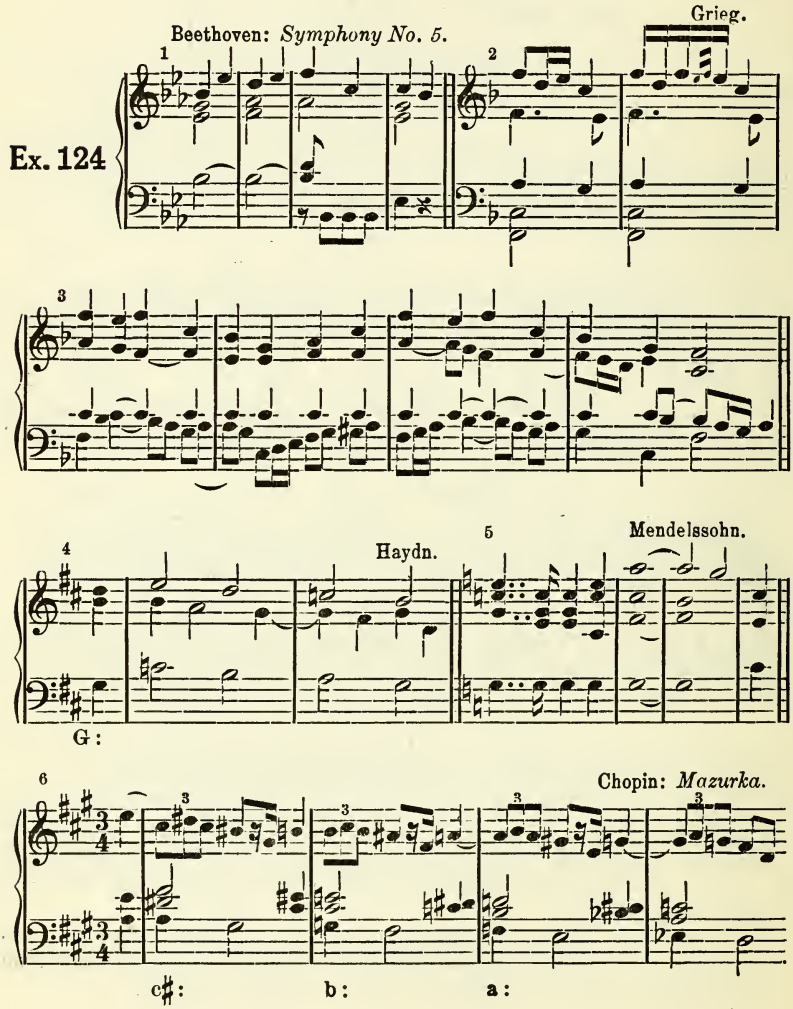
126. The resolution is said to be "ornamental" when the suspended note moves to another tone of the chord or to other embellishments before the final resolution. Ex. 124, Nos. 3 and 6.

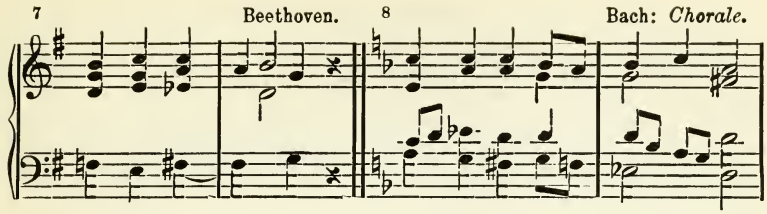
a. Sometimes the bytones are embellished by other bytones, as No. 9, Ex. 124.

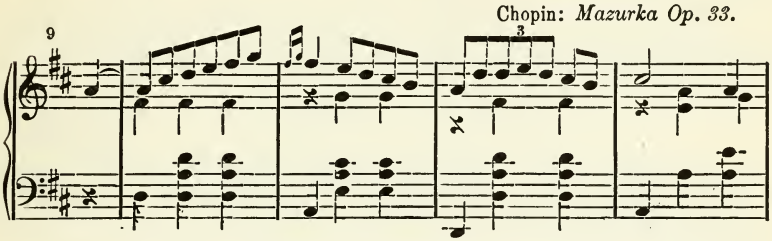
b. Since a suspension is only a temporary effect, the resolution is considered as though heard with the remaining parts of the harmony. The fifths are not always objectionable, but it is better to avoid the octaves.

127. Mark the suspensions and other bytones in the following :—

Ex. 124

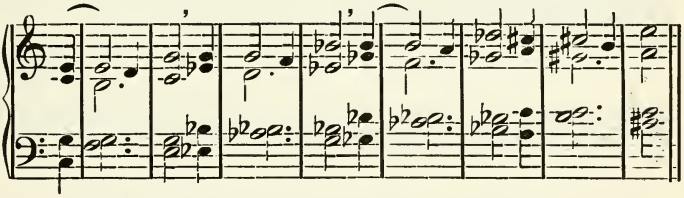




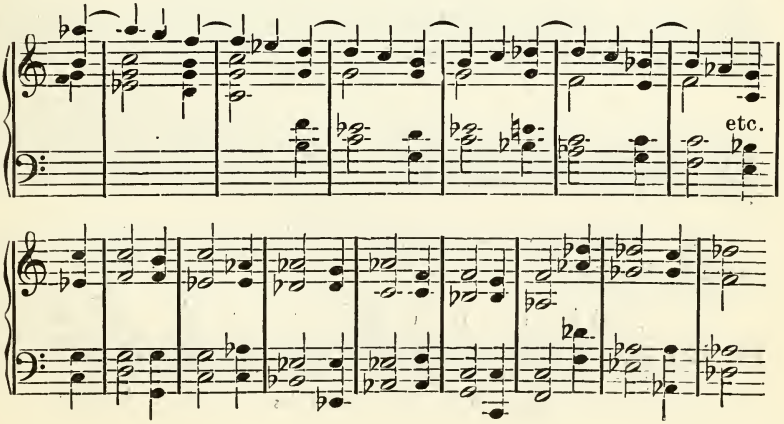


128. Describe these sequences and play them, beginning in other keys:—

Ex. 125



The next one may be too difficult for some students at this time; if so, it may be studied later. Sequences are very helpful in acquiring facility at the key-board; what one might term "the harmonic idiom."

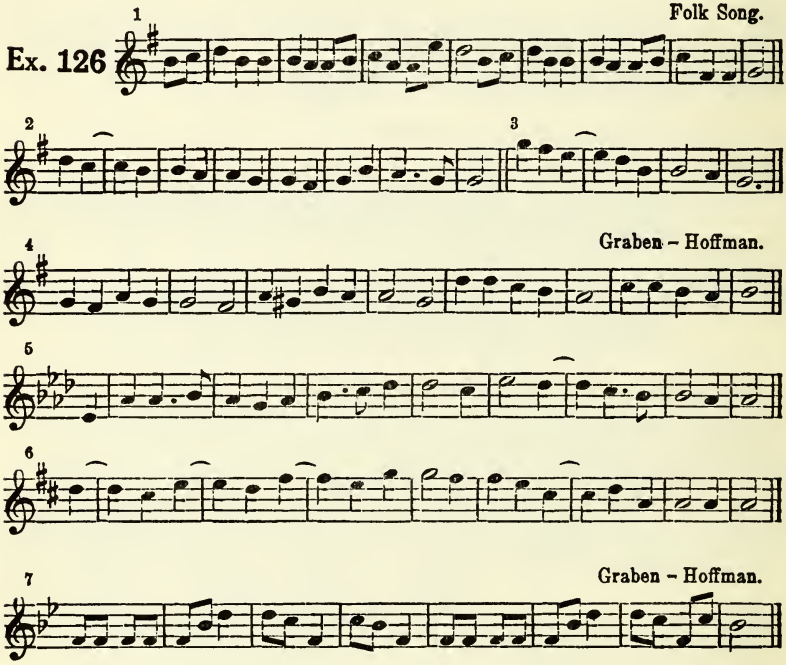


129. One of the worst faults of writing is the repetition of a chord on a strong beat, especially when the bass is the same as the preceding weak beat. The melody tone should either be treated as a suspension, or a component of another harmony. When the note is tied, if possible, harmonize it with a chord that forces it to fall, as most suspensions do. By planning the harmonic regulation first, places for bytones occur that never would be found by the average student at this stage of the work.

The use of certain figures—rhythmic, melodic, and harmonic—gives organic unity to the whole and trains the student in the most important features of composition—the development of material.

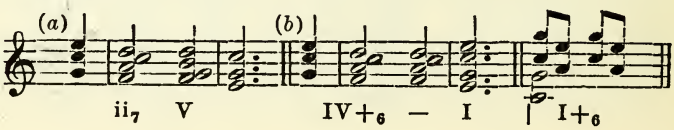
MELODIES TO HARMONIZE.

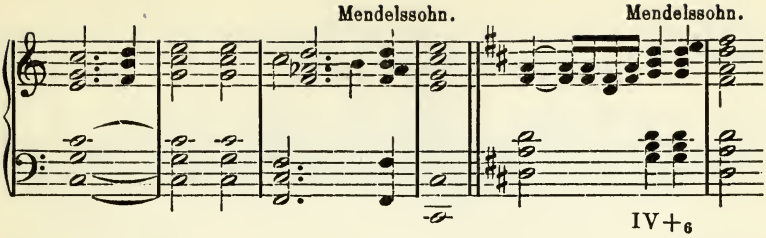
Ex. 126



130. Another species of bytones is the *Added Sixth*, first introduced by Rameau:—

Ex. 127





131. If the tone which appears to be a chord-7th resolves as a seventh naturally would, Ex. 127, (a), the chord is then considered a seventh-chord, but if what appears to be the seventh remains static, the tone that moves is considered the dissonant one; (b).

132. The added-sixth is dissonant with the chord-5th and resolves on the chord-3rd as at (b). Like the chord-7th, it increases the cadencing effect, especially with IV. Without the presence of the chord-5th, a tone cannot be considered an added-6th. In his text, Rameau said that if the chord was followed by V, it should be considered a ii7. Since his time it has been employed with other harmonies with good effect. It is one of the devices that has not been overworked. More analysis and melodies for its use will be given in the next chapter when IV is used.

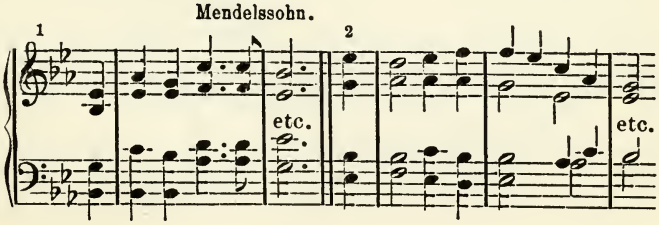
CHAPTER VII.

Subdominant Harmony Continued.

133. IV with the various bytones will now be considered and applied in the harmonization of melodies.

a. Mark the outside parts and all of the bytones of the following, noticing in particular, the relations of IV,—how approached and left:—

Ex. 128



3 Bach. 4 Sibelius: Op. 58.

5 Chopin: *Mazurka.*

6 Brahms: Op. 117.

7

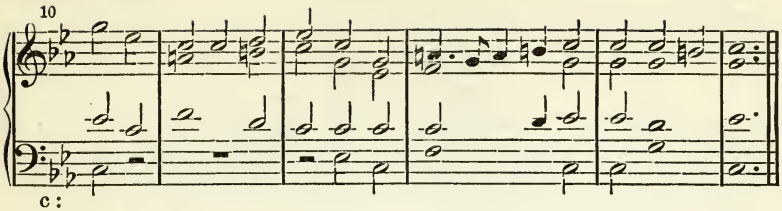
No. 8 is an example of the "Tierce de Picardie"—a major chord in the final cadence of a piece written in the minor mode. At No. 11 occurs a tonic chord with the small 7th creating a demand for the subdominant harmony.

8 Bach. 9 MacDowell.

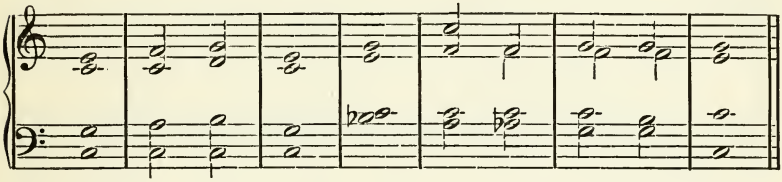
b:

Handel.

10

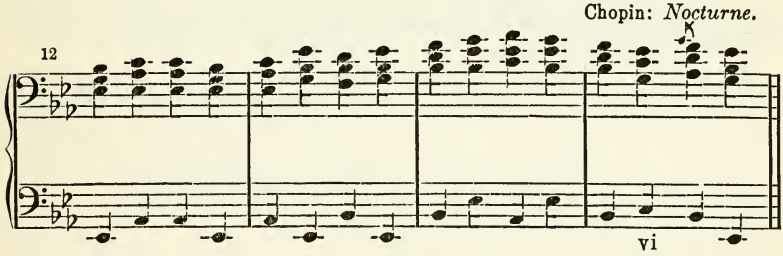


11 Barry.



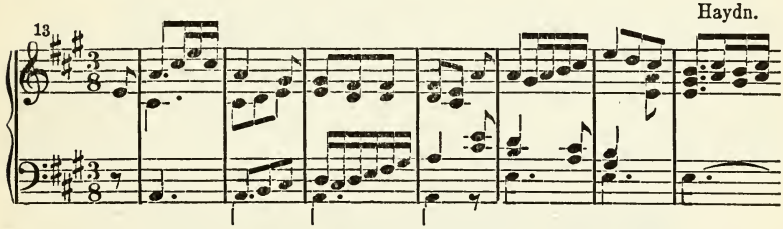
Chopin: *Nocturne.*

12

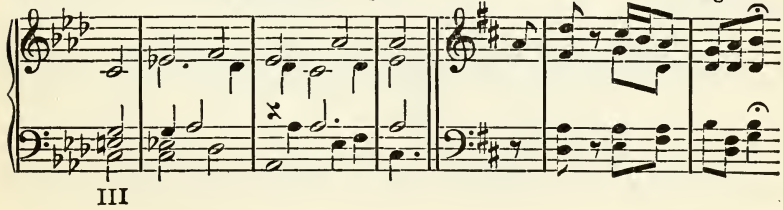


Haydn.

13



14 Mendelssohn: Op. 65. 15 Wagner.



14 Bach. 15 Heller: Op. 45.

E: a:

16 Elgar.

The various chords with their contexts should be played in many keys, not only to acquire key-board facility, but to acquire a tone concept of the chord effects.

134. Play the two, three and four-chord cadences in different positions, also the other chord groups of the following, in many keys, both modes: I-IV-I. I-IV-V_7-I. I-IV-I-V_7-I. I-IV-I. I-IV-I-V_7-I.

5 5 3 5

I-IV-I-V_7-I. i-V-i–iv-i-V_7-i. i-V-i-iv-i-V-i. i-V-i-iv-i-V_7-i.

3 3 5 5 3 5 3 5 5 7 3 5

3 5

I-I-IV-IV-I-V_7-I. I-I-IV-IV-I-V_7-I.

7 3 8 5 3 3 5

From the foregoing it is seen that IV demands I: IV-I: I-IV.

5 3 5 7 3

135. Memorize this sequence and play through the flat keys back to the key of C. The tonic chord of one key is taken for the subdominant of the next, the new key being confirmed by the second inversion of the tonic chord on the accent:—

Ex. 129

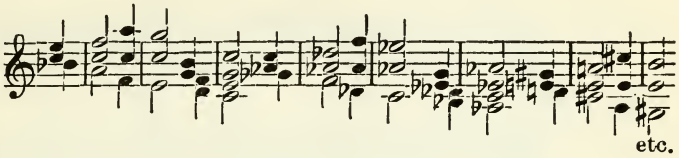
G IV D IV

Transitions or modulations may be made through a common chord or common tone. One thing is necessary: the new key must be *affirmed*

or *confirmed* by a decisive chord of the new key, which will be the dominant 7th or tonic (second inversion), the latter falling *on the accent.*

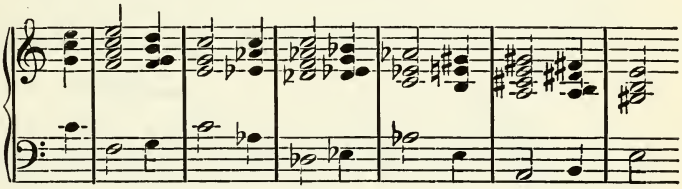
136. In this sequence the tonic root is taken as third of a new tonic, with the small seventh in the lowest part demanding the first inversion of the subdominant chord:—

Ex. 130



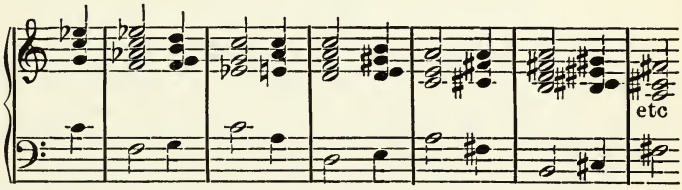
137. The next transition is effected by means of a common tone:—

Ex. 131



Begin in different keys, and follow the same pattern in the minor mode:—

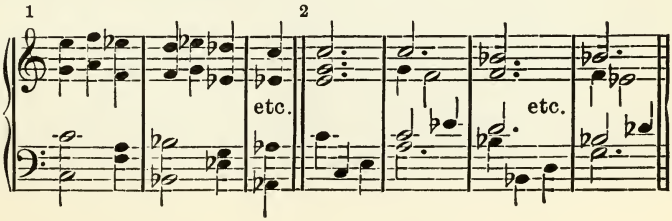
Ex. 132



138. Because of its dissonant relation to the root, the natural tendency of a chord-7th is *downward* unless it is a tone of fixed resolution like the large 7th of a tonic chord. The subdominant-7th, being a magnet, may remain stationary or move down.

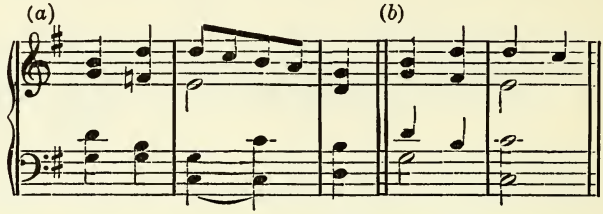
139. The following were suggested by Durand in his text for harmony:

Ex. 133



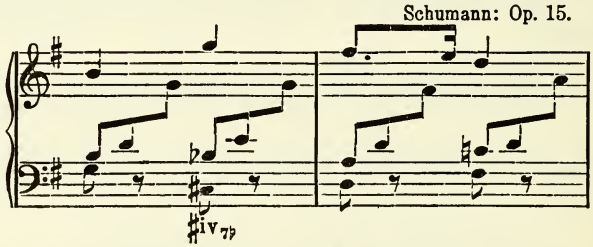
The tonic chord with a small 7th demands IV, and is often used when the tones of the melody are not components of IV, but the rhythm favors that selection (*a*). The large 7th may also move downward, having the effect of a passing tone (*b*).

Ex. 134



There is a very common use of the subdominant harmony with the root and 7th chromatically altered, leading to the dominant:—

Ex. 135



140. In the harmonization of melodies, the determining factors in the choice of harmonies (in addition to those already given) are: the melodic direction, the law of contrast and the necessity of establishing the tonality. Because it contains the leading tone (scale-7th), V is oftener used in the beginning, but not necessarily so.

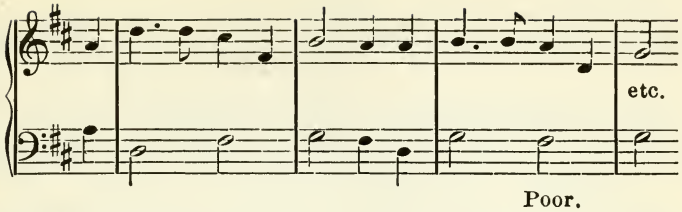
a. If the melodic line is *down* to cadence, IV will be employed unless it has already been used to such an extent that V is needed for contrast. One can almost make a rule that if the bass moves *down* to I or I, IV will be employed. *Up* to I or I, V is likely to be employed
3 5 3 8
because it is an up-leader.

b. As IV possesses a darker, more serious quality than V, it is used sparingly when the brighter, lighter quality is desired. Sometimes IV is reserved for the after-phrase for both contrast and to add harmonic weight to the after-phrase.

c. IV is rarely employed for the final chord of a cadence, because it is likely to be preceded by I, and the coincidence of harmonic and rhythmic resolution with root basses gives the impression of a new tonic for the close;

Schumann.

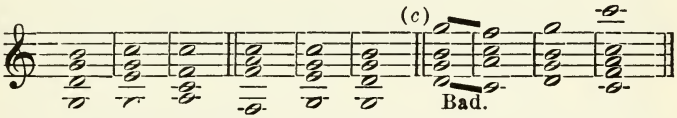
Ex. 136



When it is necessary to employ I-IV for a cadence, the tonality should be preserved by the employment of decisive chords of the key, both preceding and following the cadence.

d. It is hoped that the student has observed the use of I as a passing chord between two positions of IV; also IV between two positions of V. Ex. 137 shows I as a passing chord between V and IV, and *vice versa:*

Ex. 137



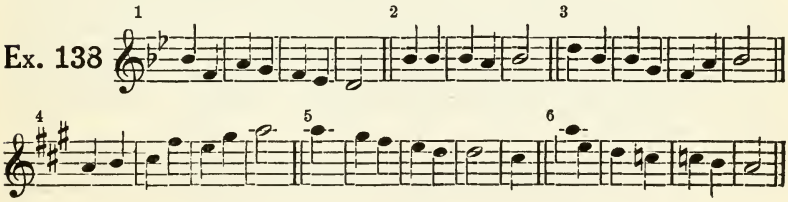
e. Connecting V and IV, care should be taken that the basic degrees of the outside parts are not moving in the same direction. At (c), Ex. 137, the consecutive fourths are very objectionable. When IV follows V, the outside parts move in contrary direction, *almost invariably,* and very often, one part moves by leap.

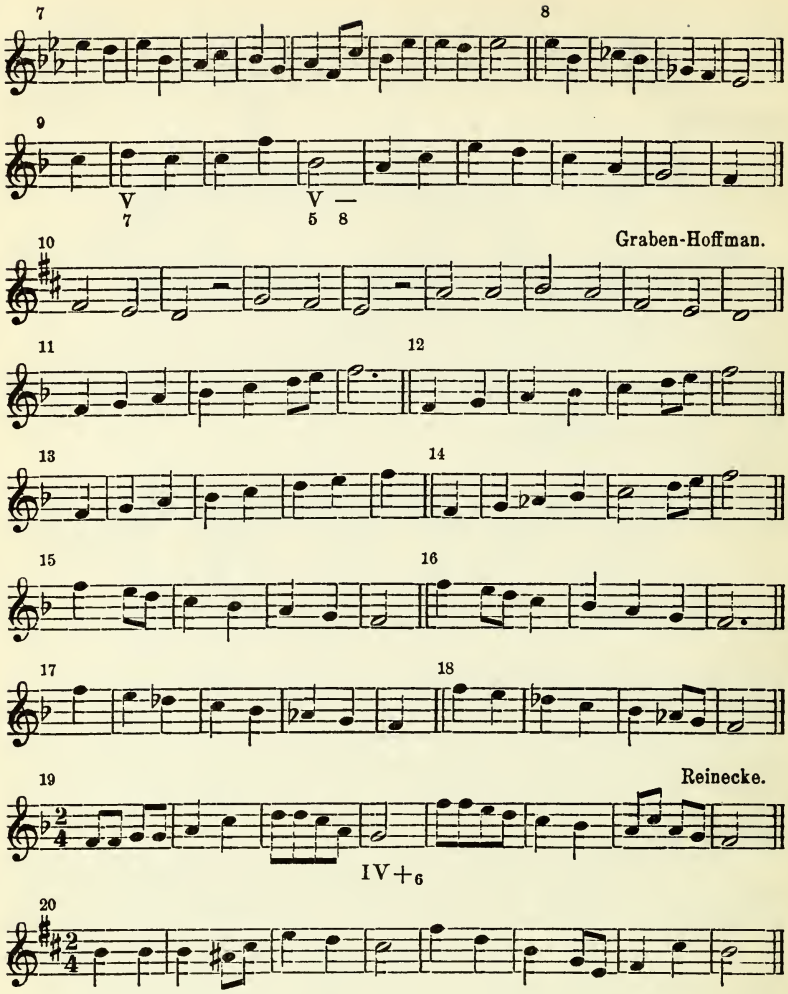
f. When the root of the second inversion of a chord *other* than the tonic is prepared on a stronger beat than the chord in the inversion, the latter is less assertive as a new I. In Ex. 128, No. 2, the duration of the first accented chord adds strength, so the effect of IV is that of a passing chord.

g. The tones comprising the interval of an augmented second should both be in the same harmony, so the scale-6th must necessarily be employed as a V9 if the harmonic form of the minor mode is in use.

h. The location of 7♭ at the side of the Roman numeral indicates that the small seventh should be used in one of the middle parts. It is to be employed in the bass when it is directly *under* the Roman figure.

Ex. 138



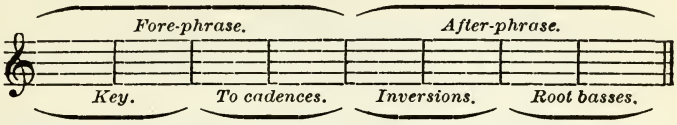


141. In composition, to use inversions skillfully is considered vastly more important and in better taste than to use many harmonies; so as each new harmony is introduced, the effect of the various inversions, positions and rhythmic relations should be thoroughly understood, heard and felt before taking another harmony. Ex. 141 provides more difficult melodies.

a. In these longer melodies, compare the cadences to see if there is sufficient contrast, also the harmony of sections for both contrast and

coherence. Consider the plan of the whole, just as an artist plans according to the size of the canvas. In an eight-bar melody, mark the sections and learn what to expect in each:

Ex. 139



b. Naturally, all melodies cannot be treated in exactly the same way, but there is a general plan that the beginner should follow.

First section, establish the key.

The second section should lead to the middle cadence.

From the middle cadence the objective point is the final cadence, to which the last section is usually given.

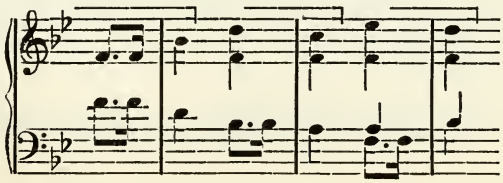
The harmonies of the third section should not only lead to the close, but include the three things that contribute to harmonic lightness in contrast with the closing section, also the contrast of quality and quantity with the fore-phrase. The entire after-phrase should furnish quantitative and qualitative contrast with the fore-phrase. In larger forms and with a rapid tempo, the proportions would naturally be on a larger scale. The same principles apply to melody writing. In the author's judgment, the feeling for harmonic regulation is an absolute necessity for melodies worthy of the name.

c. A vital fact to be remembered is: Where the *form* requires continuity, it must be preserved by either the rhythm or the harmony. I may be employed on a progression beat or bar without disturbing the rhythmic flow, but if it falls on a normal rhythmic pause, then there is a cadence. For continuity, the progression harmony should be employed at points of rhythmic pause. In other words, either the harmony or rhythm must produce the onward flow to the final objective of a phrase.

d. Look for a place for inversions in the third, fifth and sixth bars, because they mean continuity in contrast to the stability of the final cadence of either phrase. The student is again reminded that I with root bass does not produce a pause when it falls on a weak beat. Rhythmic progress is a stronger force than the harmonic quality.

e. It is in good taste to let another part imitate the rhythmic figure of the first section. For example, the first figure of No. 4:

Ex. 140



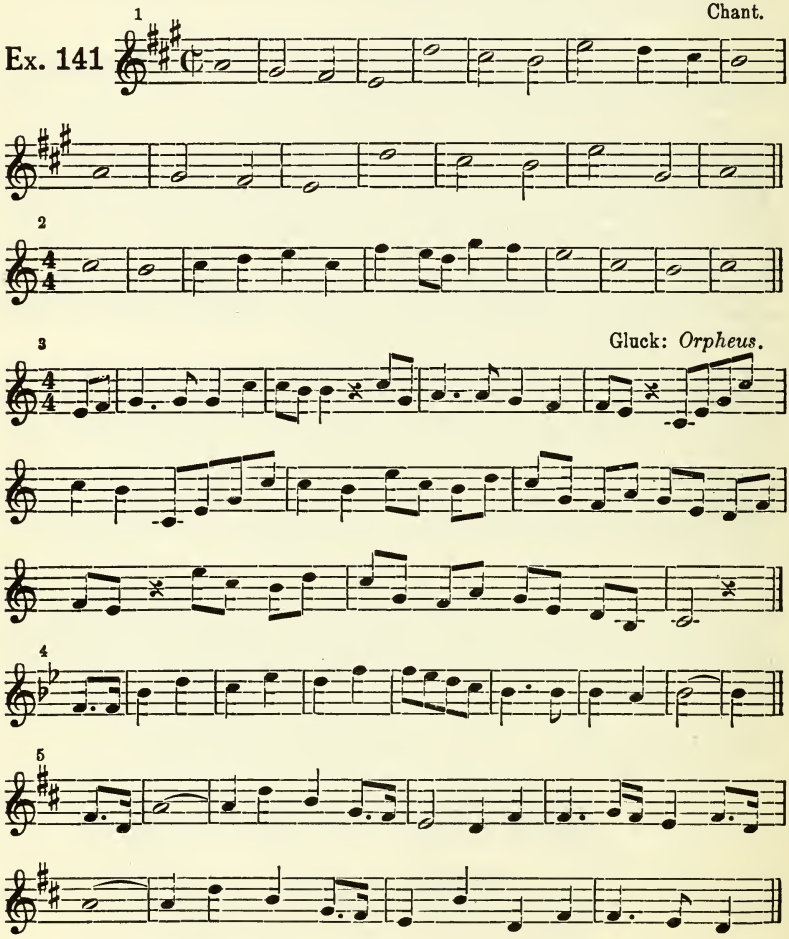
f. Because they are harmonies with a common tone, consecutive pure fifths are often found between middle parts of IV and I, but seldom between IV and V, because there is no common tone.

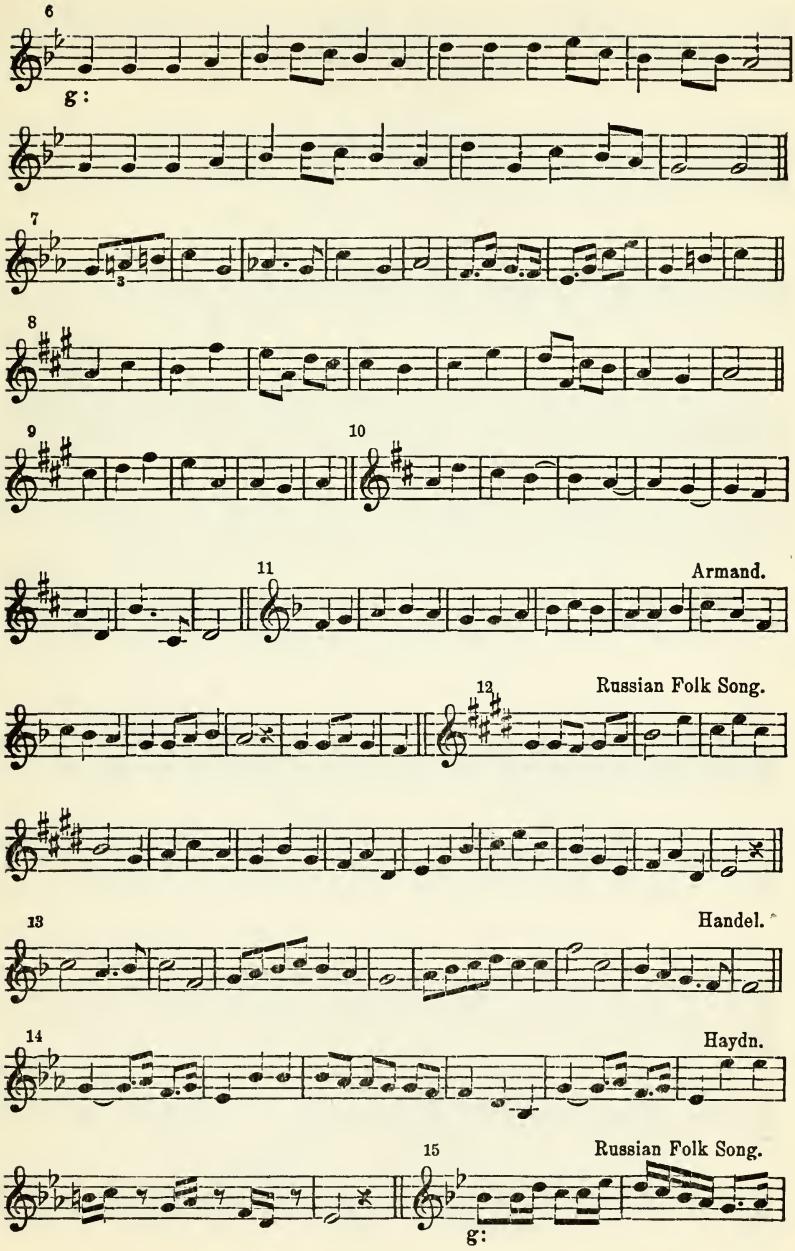
g. After a climax, it is often good to leave the melody unharmonized for two or three notes. Try it.

142. Find the harmonic regulation and write the bass to all of the exercises, but not the middle parts for all.

a. Employ suspensions in different parts and embellish the bass with the various bytones as suggested in the previous work.

Ex. 141




6
g:
7
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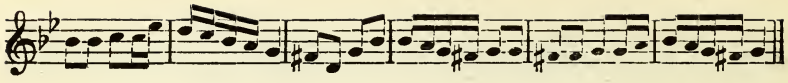
10
11
Armand.
12
Russian Folk Song.
13
Handel.
14
Haydn.
15
Russian Folk Song.
g:



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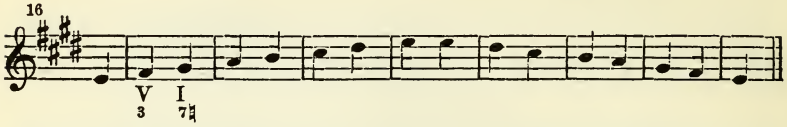
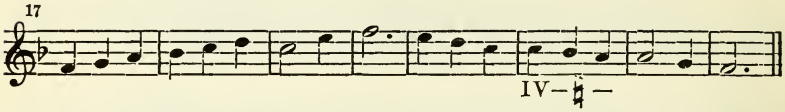
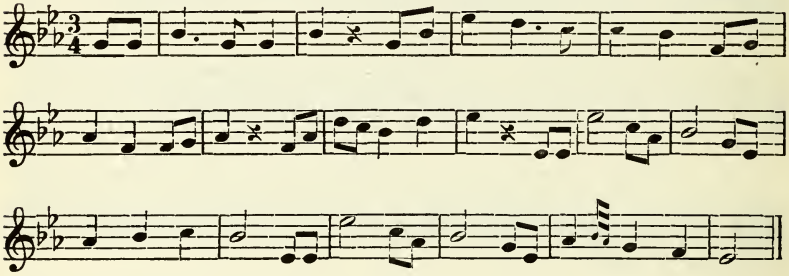


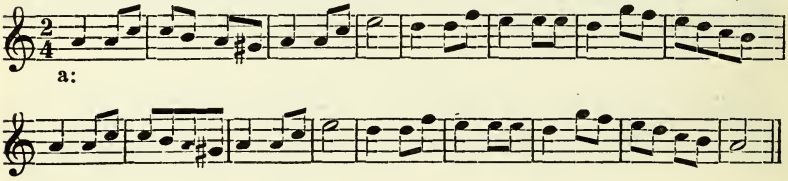
17



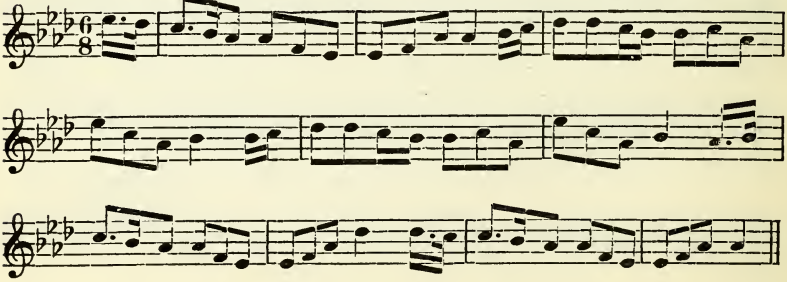
18 Brahms.



19 Russian Folk Song.



20 Irish National Song.



CHAPTER VIII.

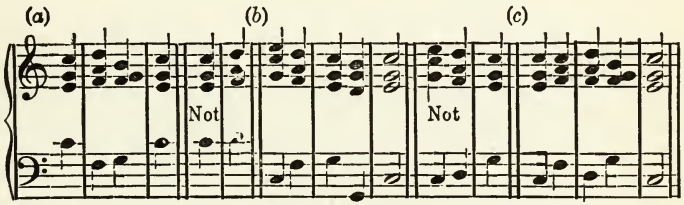
The Supertonic Harmony.

143. Constructing chords on the Supertonic (scale-2nd), what is the mode of the chord in the major key? In the minor with the small 6th?

144. Referring to the circle of fifths, Ex. 90, it is seen that the scale-5th generates the scale-2nd. As every chord resolves on its generator, except vii, *naturally*, ii demands V. Very frequently it is followed by I, the bass taking the natural resolution of 2 to 5. Considering the dual nature of $\overset{5}{\text{I}}$, this chord connection is quite consistent.

a. Any chord may be followed by any other one, but the natural resolution is the first thing for the student to learn and follow, after which the irregular relations can be practiced intelligently. ii to I is sometimes found in serious, religious music, as will be seen in the examples for analysis. In the following example,

Ex. 142

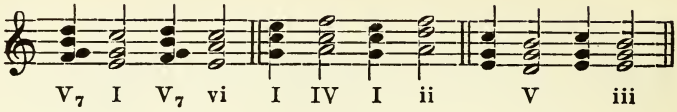


to have employed the root position at (*a*) would have resulted in consecutive octaves. At (*b*) the leap to the accent would have been undesirable—moving in the same direction after consecutive degrees. Approached by contrary motion, as at (*c*), the root position is good. The leap to the accent by the primary tones as roots of their respective harmonies, as from G to C in the first example, is good.

145. The minor triads of a key (ii, iii, vi) are termed "Secondary" chords, in distinction to the primary (I, IV, V). Being primary tones, the 3rd of minor triads may be doubled with good effect. As suggested by John Curwen, the minor chords of a key may be consid-

ered as *substitutes* for the major; vi the substitute for I; ii for IV, and iii for V.

Ex. 143

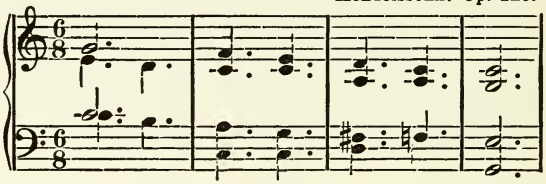


a. Again referring to the circle of fifths, since ii is in the direct line of progress to I, if a direct movement to cadence is desired, ii-V-I is better than moving from ii to IV on the opposite side of the tone-center and then back again to V. To delay the cadence, this may be done, as in Ex. 144. ii-I gives the effect of an imperfect Plagal cadence.

146. Good composers sometimes employ the supertonic chord preceding the subdominant, but the progression is less desirable and should be avoided until one is farther advanced and more accustomed to exceptional progressions.

Mendelssohn: Op. 120.

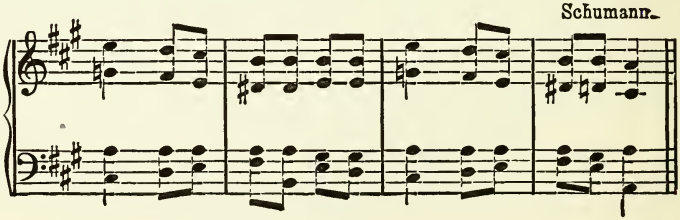
Ex. 144



147. The supertonic chord is frequently altered to the major mode without effecting a modulation. If a chord chromatically altered is preceded and followed by a diatonic chord of the key, no modulation takes place. The excerpt from Schumann shows a small 7th with the tonic chord, and an augmented 4th of the scale as 3rd of the supertonic chord, altering the mode to major; neither effecting a modulation because they are not followed by a cadence, or chords that confirm the suggested change of key. The tonality is never obscure when the chromatic alterations are chosen from both the flatter and sharper sides of the key:—

Schumann.

Ex. 145



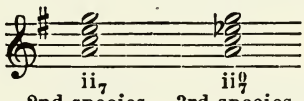
148. In the analysis it is sometimes difficult to distinguish between ii7 and IV+6. As this was discussed in the chapter on bytones, paragraph 127, attention is called to Rameau's statement quoted there.

a. What is the species of ii7? Of ii^{0}_{7} as found in the minor mode?

Because of bytones and the omission of the root, one cannot always analyze correctly by arranging the tones in 3rds, but *a chord may be identified by the relations in which it appears, and by what it demands.* It may not progress to what it demands, but the *demand* is one of the characteristics by which it may be known.

149. 7ths and 9ths are freely employed in the supertonic harmony. The large 3rd between the 5th and 7th of the supertonic 7th in the minor key will distinguish it from the diminished 7th chord.

Ex. 146



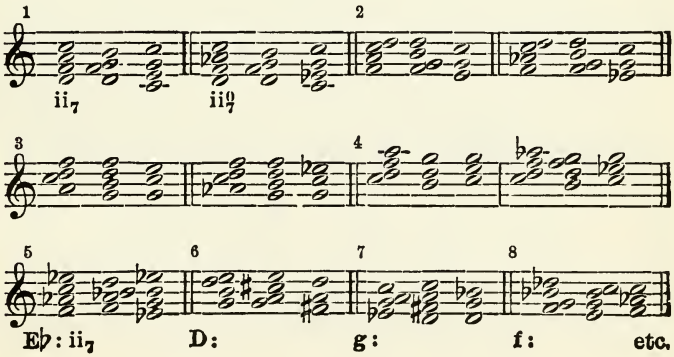
Three and four-chord cadences may be played by substituting ii for IV. Play them rhythmically, always:—

$\overset{8}{\underset{3}{\text{I-ii-V}_7\text{-I.}}}$ $\overset{3}{\underset{3}{\text{I-ii-V}_7\text{-I.}}}$ $\overset{5}{\underset{3\ 3}{\text{I-ii-V}_7\text{I.}}}$ $\overset{5}{\underset{3\ 3\ \ 7}{\text{i-ii}^0\text{-V-i.}}}$ $\overset{3}{\underset{3\ \ 5}{\text{i-ii}^0\text{-i-V}_7\text{-i.}}}$ $\underset{3}{\text{i-iv-ii}^0\text{-V}^7\text{-i.}}$

$\text{I-IV-ii-V}_7\text{-I.}$ $\overset{8}{\underset{5\ \ 5}{\text{i-ii}^0_7\text{-i-V}_7\text{-i.}}}$ $\overset{3}{\underset{3\ 7\ 3}{\text{I-ii-V-I-II}_7\text{-V}_7\text{I.}}}$ $\overset{3}{\underset{3\ \ 5}{\text{i-ii}^0\text{-i-iv-i-V-i.}}}$

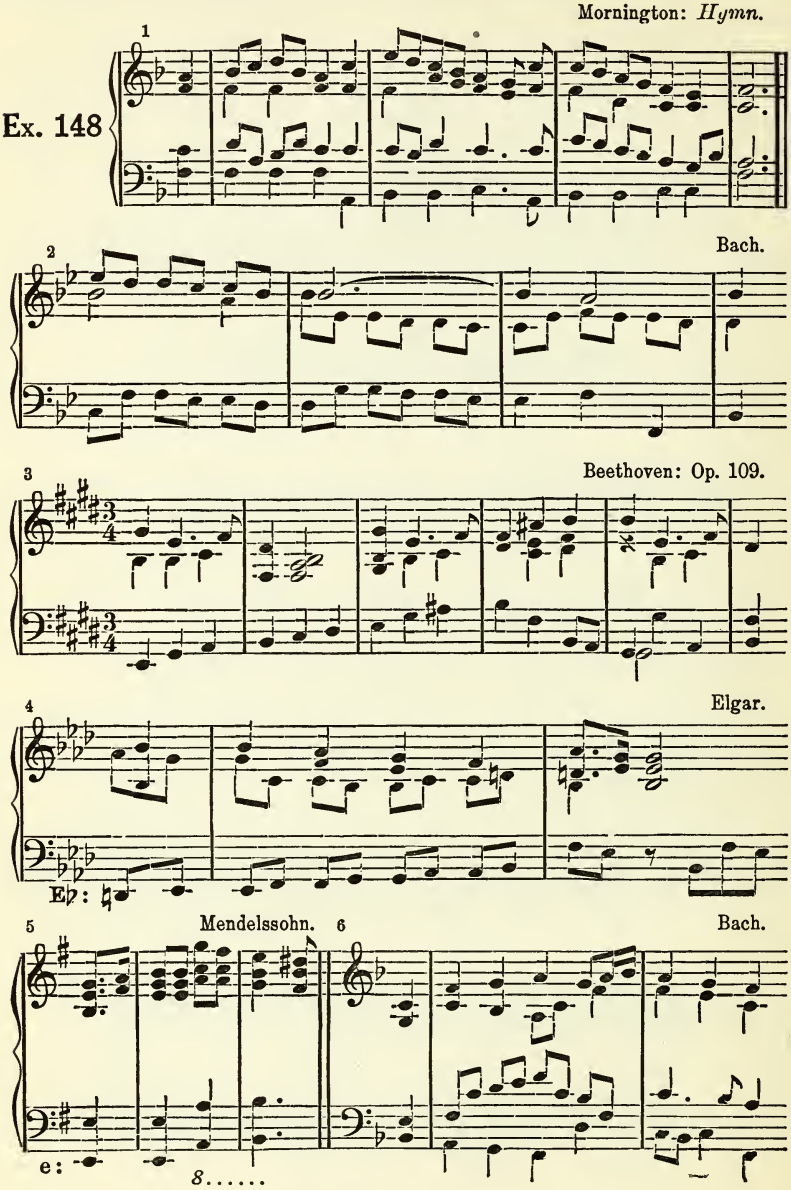
On different notes, write and resolve the various species of supertonic 7th chords, in the four positions:—

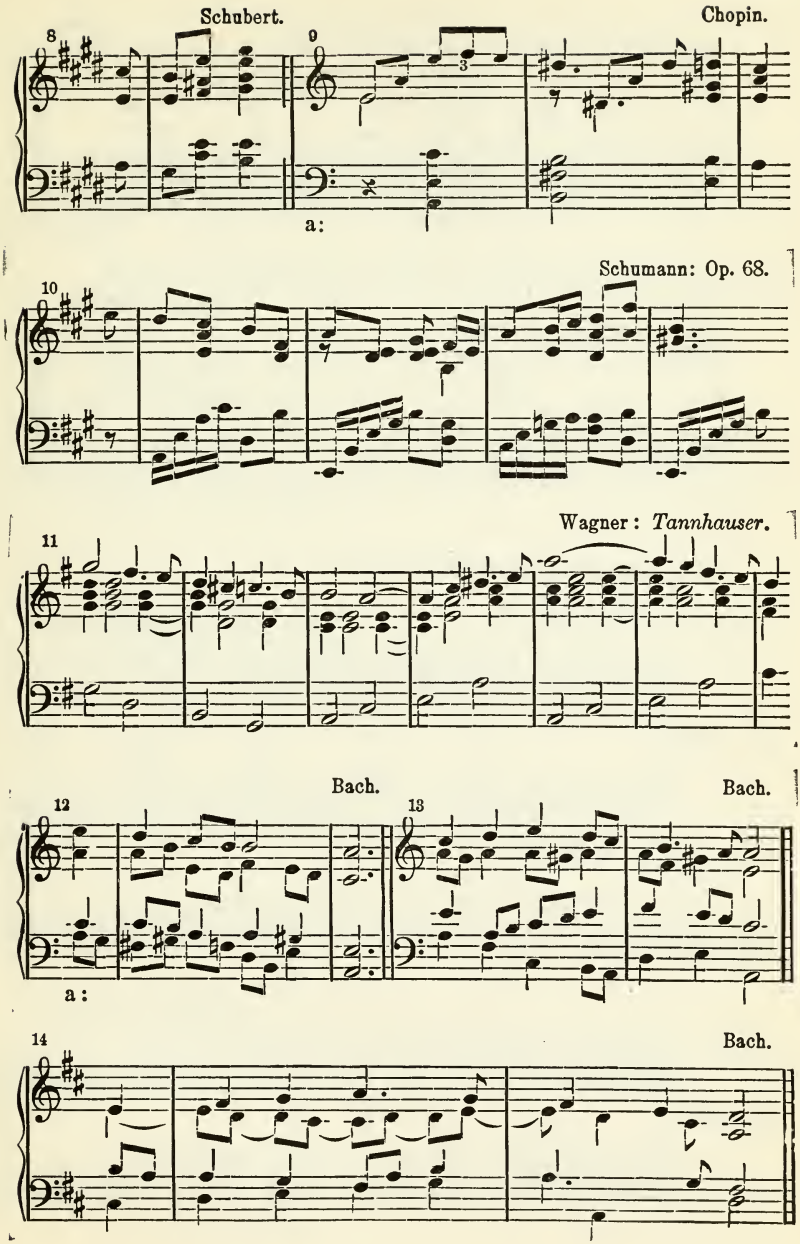
Ex. 147



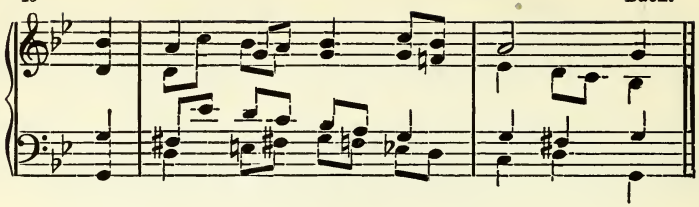
Mark the chords and their inversions in the following excerpts and observe the approach of the supertonic chords:—

Ex. 148

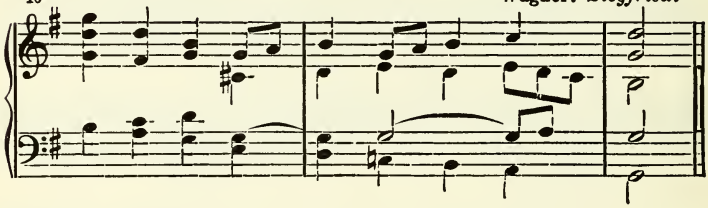



Schubert.
Chopin.
8
9
a:
Schumann: Op. 68.
10
Wagner: *Tannhauser.*
11
Bach.
Bach.
12
13
a:
Bach.
14

15 Bach.



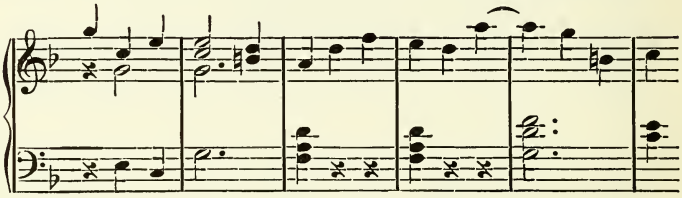
16 Wagner: *Siegfried.*



This example shows ii following V:—

Mozart: *Sonata.*

Ex. 149

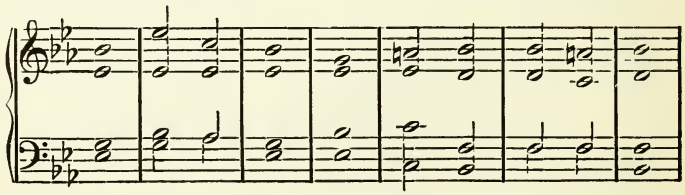


C:

The next example shows the altered supertonic taken as a new dominant, the new key confirmed by the second inversion of the tonic in the sixth measure:—

Robinson: *Jubilate Deo.*

Ex. 150

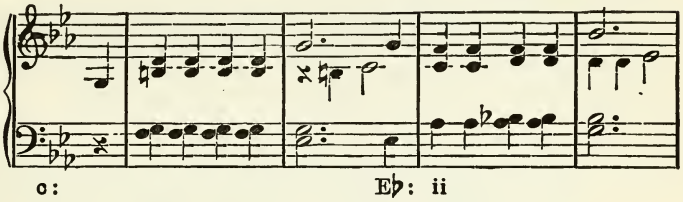


B♭:V$_7$

Ex. 151 shows the subdominant chord taken as the supertonic in the key of the relative major. Notice the suspension after a rest in the alto:—

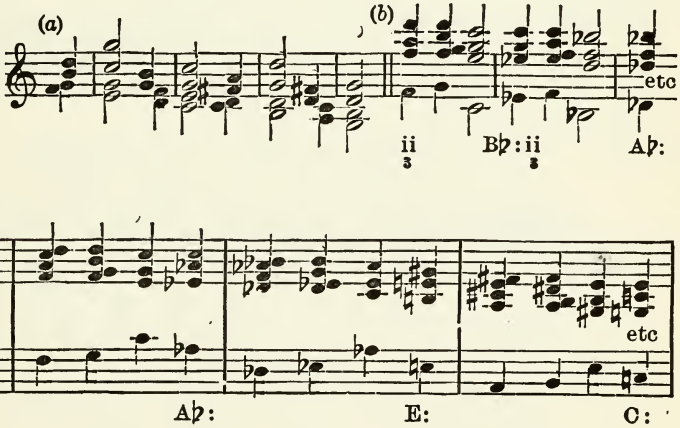
Beethoven; Op. 13.

Ex. 151



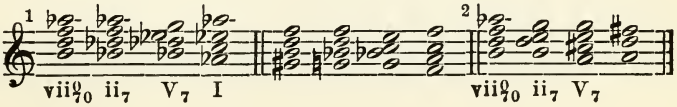
150. In the sequences of Ex. 152, at (*a*) II_7 is taken for V_7 and resolved. At (*b*) I is changed to minor mode and taken as a new ii and resolved. At (*c*) the transition is made through the common tone and is the same as Ex. 131, with IV_7 replaced by ii_7. Play them without notes in both modes:—

Ex. 152



151. Beginning with a diminished seventh chord, lower any two or three voices that will convert the chord into a seventh-chord of the second species, and take it as a supertonic 7th chord, resolving in the usual way:—

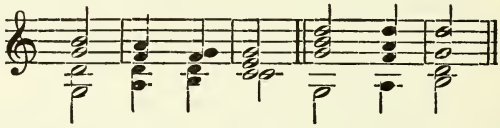
Ex. 153



152. What degree of the supertonic triad is most frequently doubled in four-part writing? The doubling of the third is owing to the nature of Re, scale-2nd, also the fact that the tonal force of the scale-4th increases the strength of the chord which is needed in the cadence which ii extends.

153. The tonal power of second inversions prohibits a free use with the secondary harmonies, especially on the strong beats, unless the chord-7th is present. On the weak beats they are very useful as passing chords. Ex. 154 shows ii as a passing chord:

Ex. 154

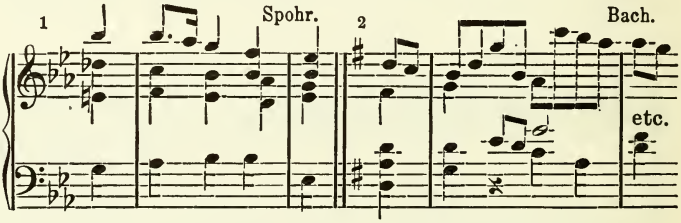


This is another illustration of the principle stated in paragraph 140, (f).

a. Unlike the primary harmonies, the chord-5th is seldom omitted. Why?

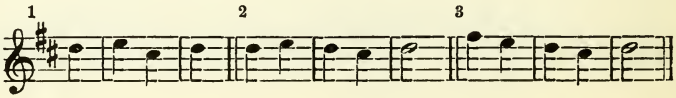
154. As may be seen in the following examples, consecutive fifths are not unknown, but observe the great skill with which they are written. Unless a student can do as well, it would be better to avoid them.

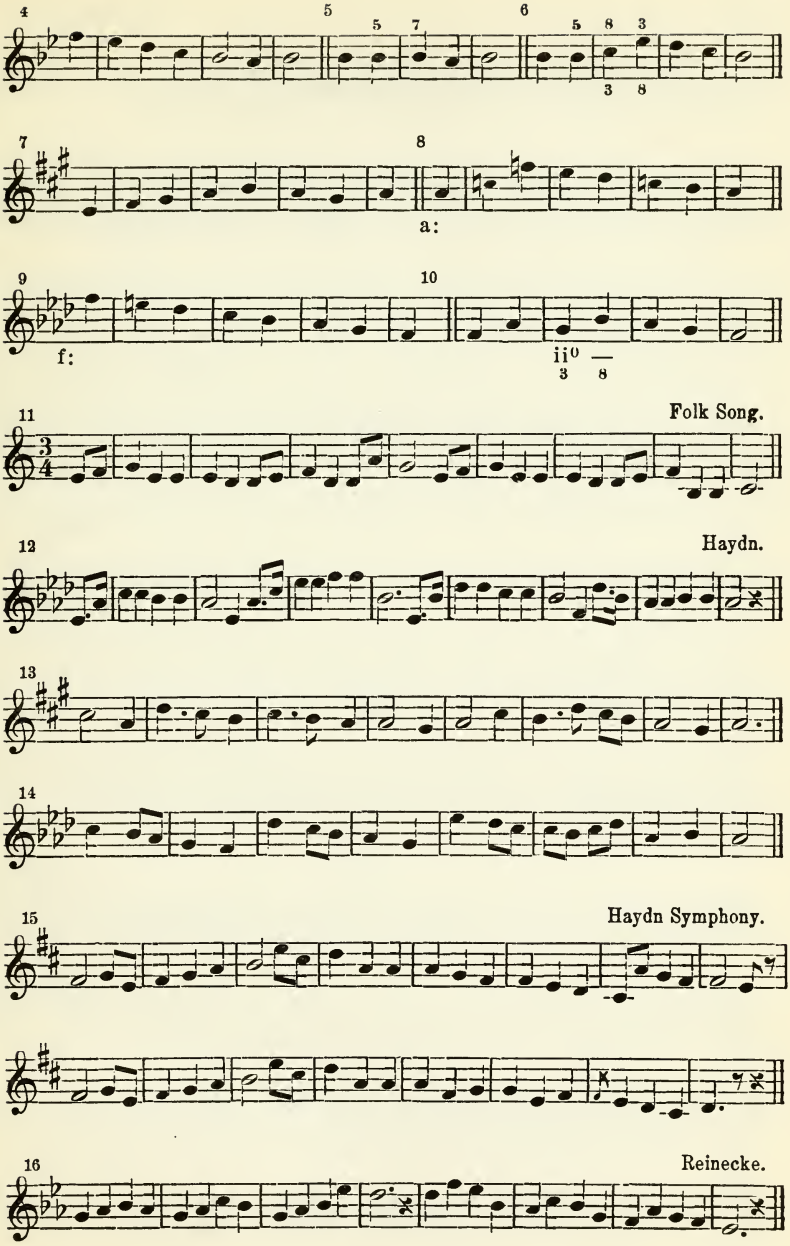
Ex. 155



155. Harmonizing the melodies for the employment of the supertonic harmony, proceed as in the preceding chapter, first finding the rhythmic groups and selecting the phrase-cadences; decide the tempo, general character, etc. Look for any rhythmo-melodic figures that might be employed in other parts.

Ex. 156




4
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6
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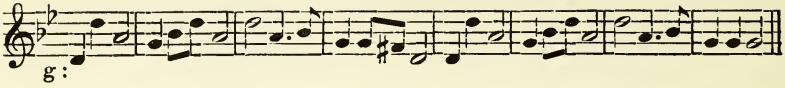
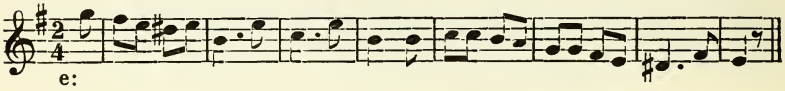
8
a:
9
10
f:
ii⁰
11
Folk Song.
12
Haydn.
13
14
15
Haydn Symphony.
16
Reinecke.

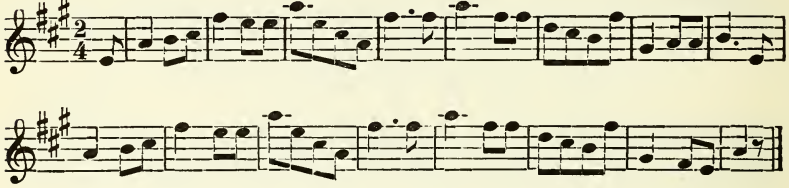
17 Norwegian Song.



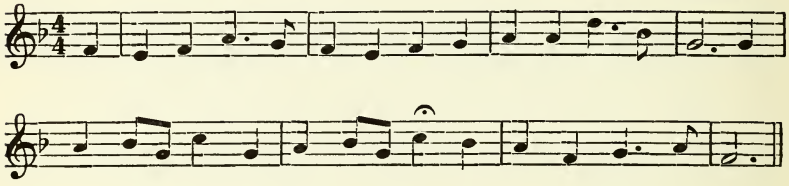
18 Schumann.



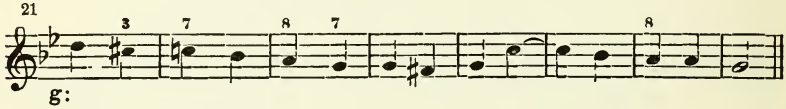
19 Schumann.



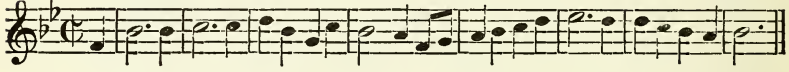
20 Reinecke.



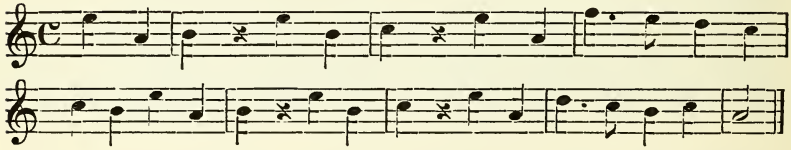
21



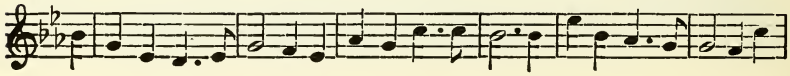
22 Haydn.

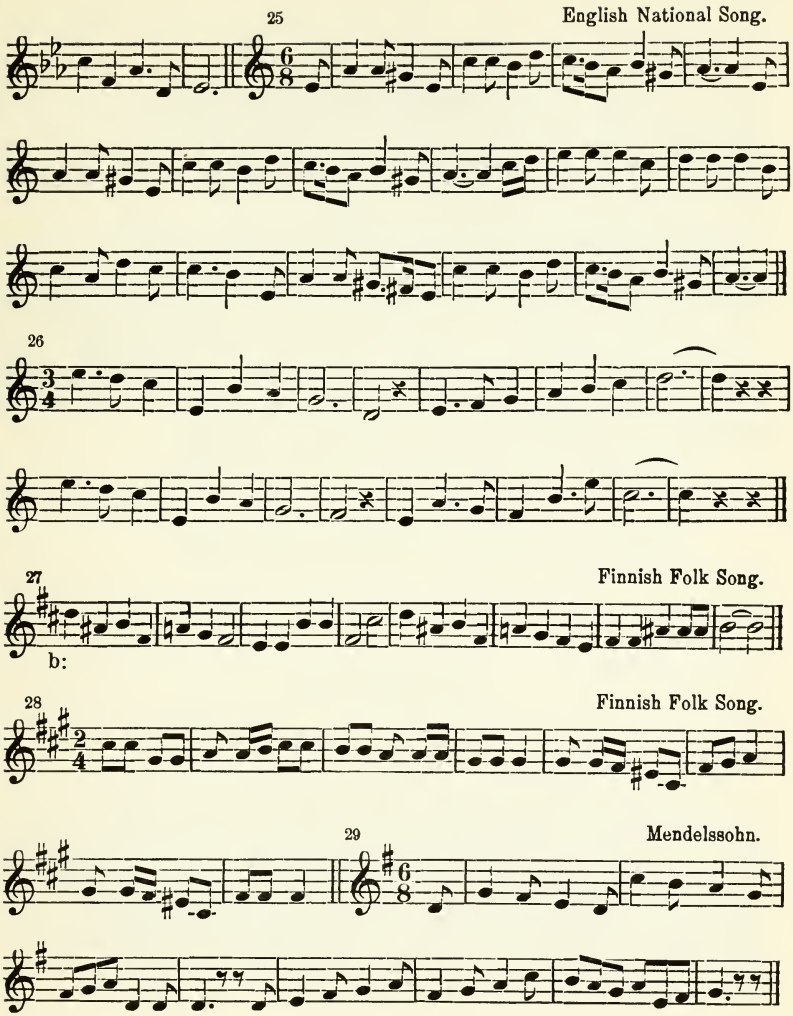


23 Armand.



24 Mendelssohn.





After every new chord introduced original melodies should be written and harmonized. Broken chord accompaniments may be written, patterns of which may be found in various songs, Mendelssohn's Songs Without Words, the easier works of Beethoven and others. One should have a knowledge of Form before undertaking large or pretentious things. The Bach Suites, Minuets, and Schumann Op. 68, 15, and 125 are good patterns for small forms.

Breaking the four part work by unison, rests, two or threee parts and various rhythms tends to lightness and flexibility. Avoid what might be heaviness and monotony. Where there is more motion in the melody, as in Nos. 18 and 26, rests may occur in some or all of the parts. On the contrary, where the melody lacks rhythmic movement and variety, more care must be given to the accompaniment. However, no matter what the form of expression, all composition is based on the four-part harmony, and the principles of harmonic regulation and relationship must be observed.

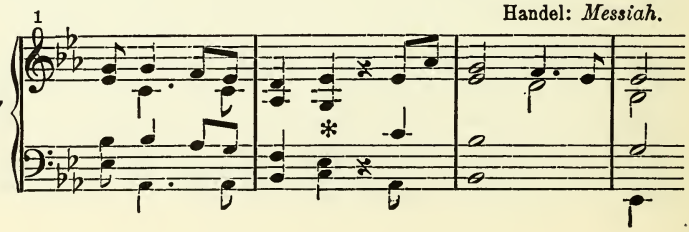
This work of harmonizing melodies should be continued until one learns to feel the regnant harmony of a melody the first time it is sung or heard, also to anticipate the rhythmic points where a change of harmony is likely to occur. A melody that cannot be well harmonized is not a good melody and should not be used for *any* purpose. One who understands this feeling for harmony will observe that a class reads very much better where the harmonic regulation of a melody is correct.

CHAPTER IX.

The Submediant Harmony, vi and VI.

156. **The Submediant Triad,** built on the sixth degree of the scale, is *minor* in a *major* key, and *major* in a *minor* key. It may be used as a substitute for the tonic harmony when a cadence should be avoided, and when so employed is sometimes called a "deceptive cadence." In the Handel excerpt of Ex. 157, to have employed a tonic chord after the dominant in the second measure would have made a perfect cadence and close before it was desired:—

Ex. 157



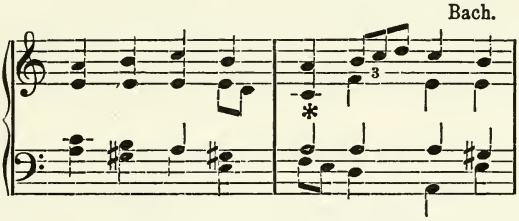
The submediant harmony demands the supertonic, but progresses to the subdominant equally well.

In contrast to the supertonic harmony, the submediant leads *from* cadence. None of the substitutional harmonies demand the tonic. *They may be followed by it, but they do not demand it.*

One has only to study the principal themes of "Parsifal" to realize what a quiet rhythm, coupled with vi, ii and IV, can effect, and to see that a composition of a serious, religious nature is not necessarily in the minor key.

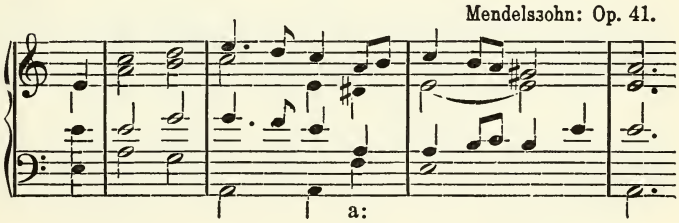
157. As the harmonic minor scale is usually employed in part writing, the mode of the submediant triad is *major* in a minor key. Although it *is* major, it is better to double the 3rd of the chord in preference to the root, especially if preceded or followed by the dominant harmony. Why?

Ex. 158



158. The second inversion (vi^{5}) falling on the accent, affirms a modulation to the key of the relative minor:—

Ex. 159

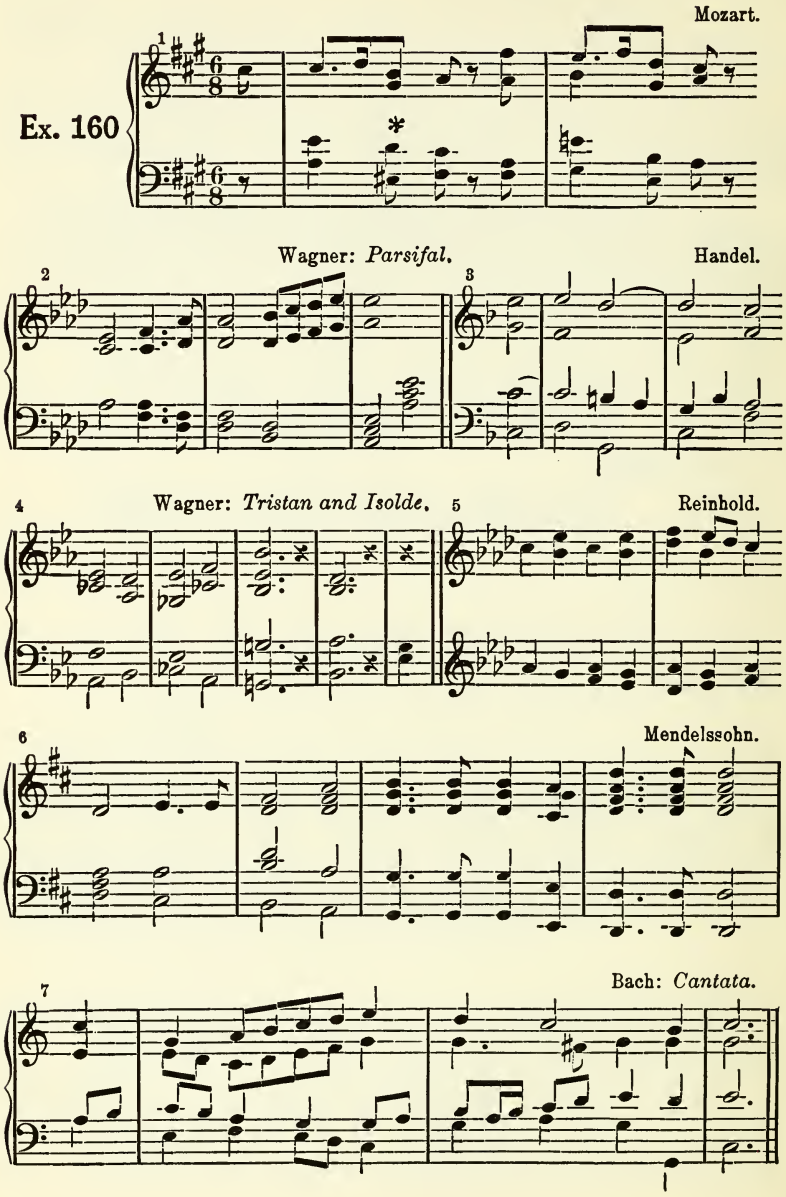


Like other secondary triads, the second inversion is seldom used except in sequences and modulations. With the 7th present, they occur frequently.

Before marking the analysis, play the excerpts and see how many of the chords can be recognized by ear. Note the movement when V and vi occur consecutively. *When two chords occur on consecutive degrees, it is better for the outside voices to move in contrary direction.* Fol-

lowing V, vi occurs as a substitute. With the root raised, V demands vi:—

Ex. 160



Beethoven.

9 Bach. 10 Schumann: Op. 68.

c:

Wagner. Brahms: Op. 45.

11 12

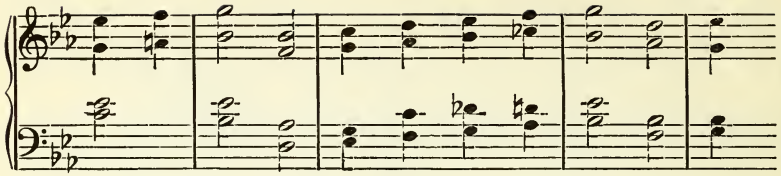
g:

13 Elgar.

14 Schumann: Op. 15.

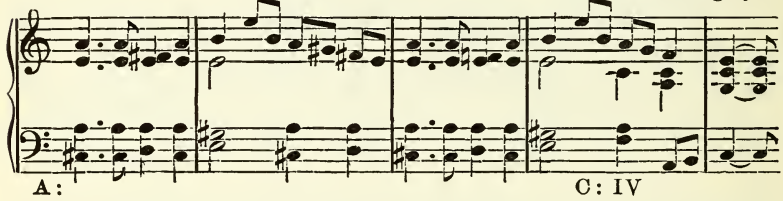
E:

15 Bruckner.



This example shows the submediant chord on the small sixth taken as the subdominant of C:—

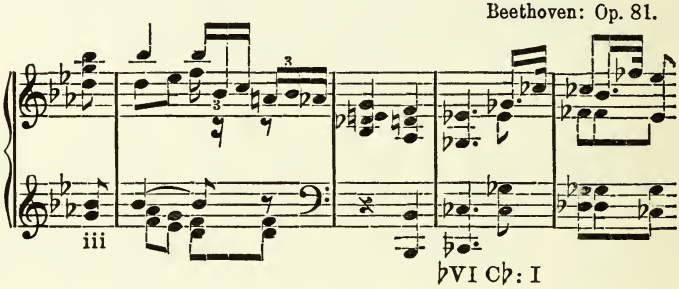
16 Moussorgsky.



Taking the submediant chord in a minor key for a new tonic in the major is a very common means of modulating:—

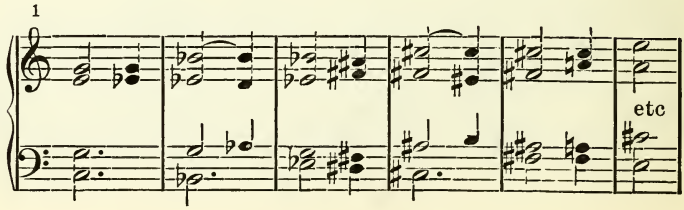
Beethoven: Op. 81.

Ex. 161



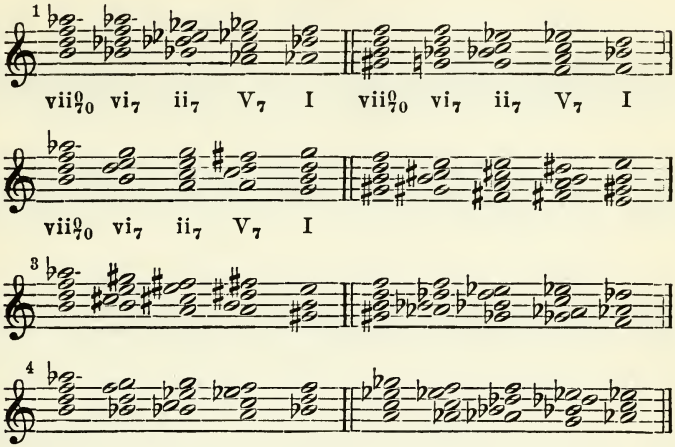
Sequences to be played beginning in different keys:—

Ex. 162



159. Beginning with the diminished 7th chord, lower any two voices a small 2nd to a 7th chord of the 2nd species and take it as the submediant 7th chord, resolving in the usual way:—

Ex. 163



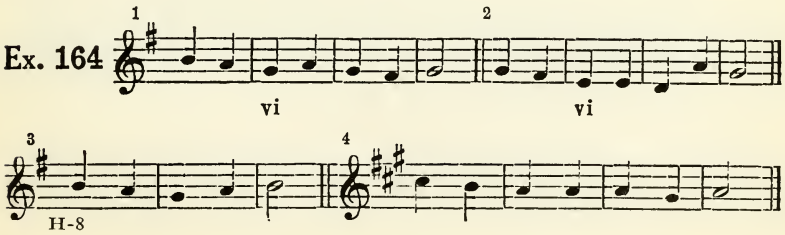
160. Employing the submediant chord in the harmonization of melodies, use it as a substitute for the sake of variety, and to delay the cadence when the metre demands progress, and not a close.

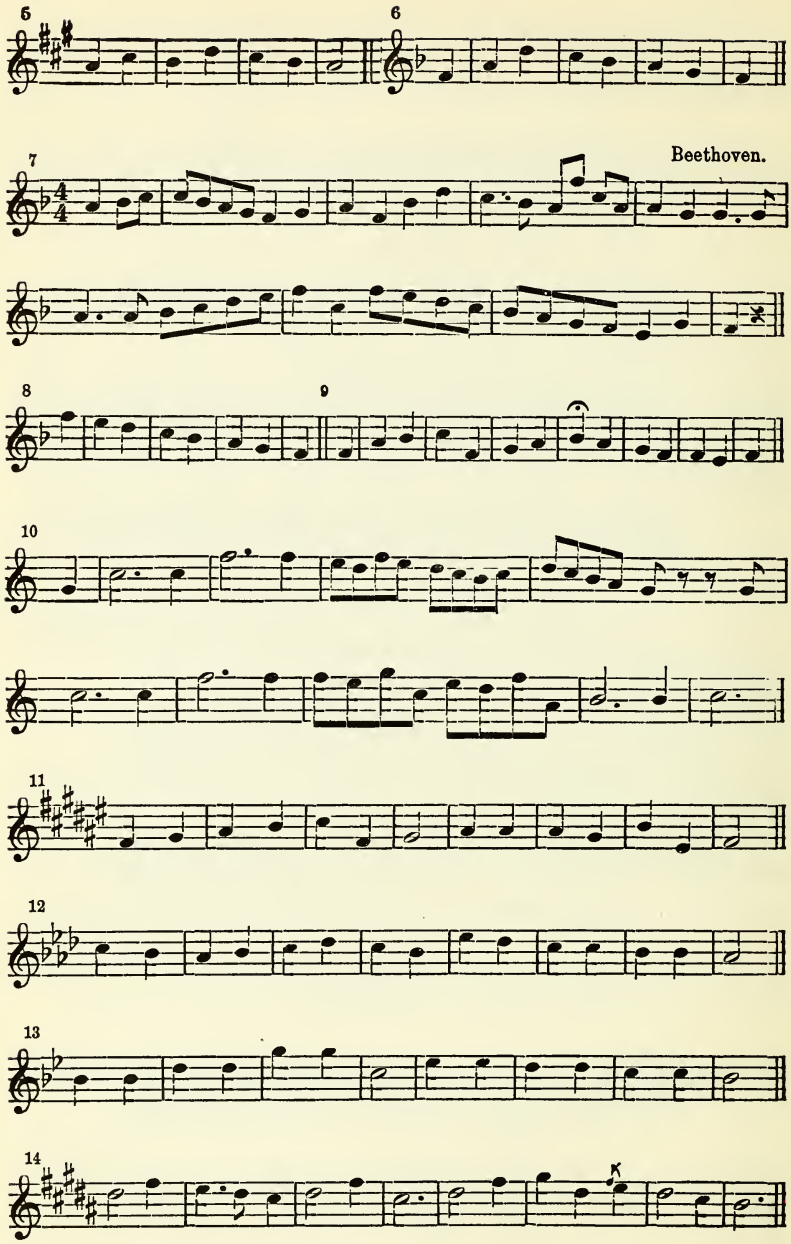
As seen in the analysis, vi is often followed by $\overset{3}{\text{I}}$. Next to the tonic, the submediant harmony can be used with more freedom than any other. It adds power, expression of faith and dignity, especially in combination with the subdominant harmony.

It is sometimes helpful to work from a cadence backwards. For example, at No. 12 the last two pulses will be V-I; ii may precede V, and vi may lead to ii, so the last three measures may be $\overset{3}{\text{I}}$-vi | $\underset{3}{\text{ii}}$-V_7 | I.

One important thing a student has to learn is, to *delay the cadence chords until the rhythmic cadences require them.*

Ex. 164




5
6
7
Beethoven.
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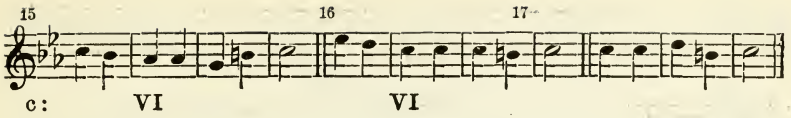
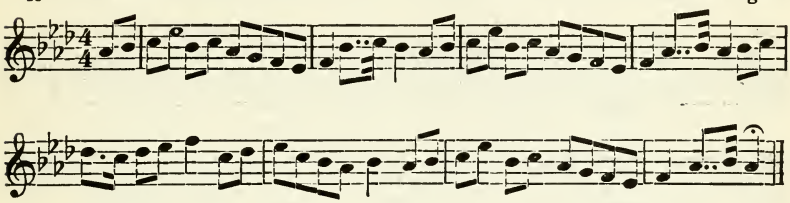
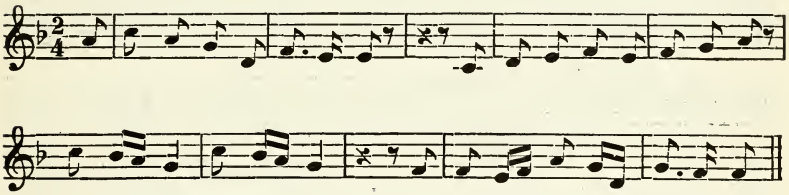
14



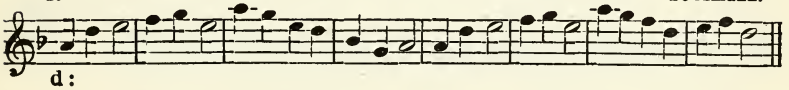
18 Scotch Song.



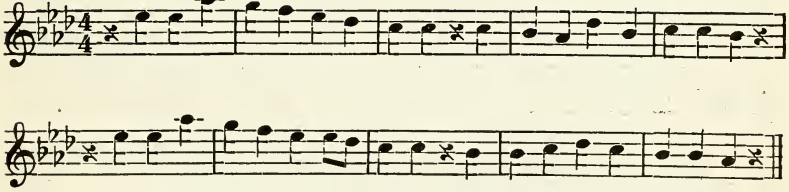
19 Schumann.



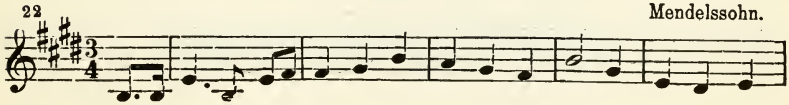
20 Schumann.

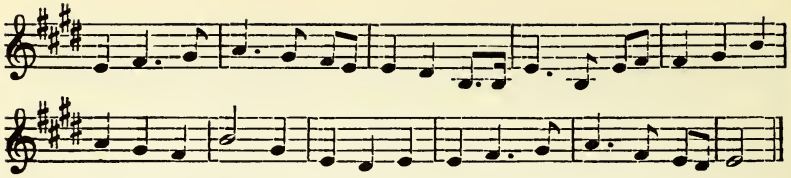


21 P. E. Bach.

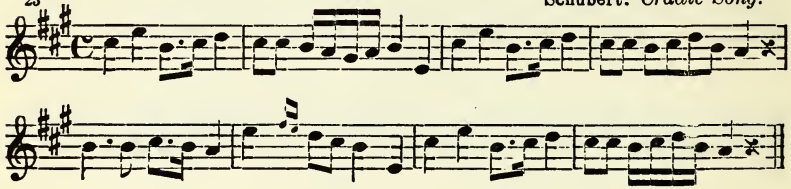


22 Mendelssohn.

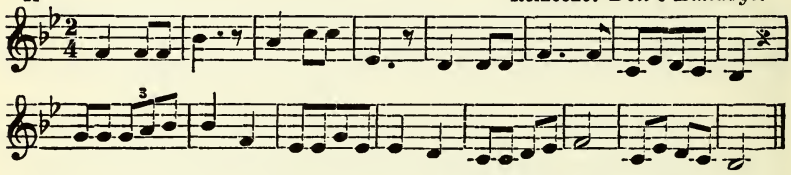




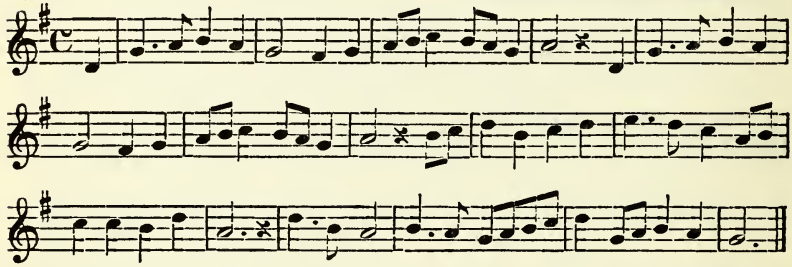
23 Schubert: *Cradle Song.*



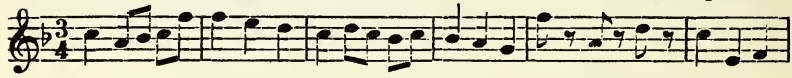
24 Reinecke: *Doll's Lullabye.*



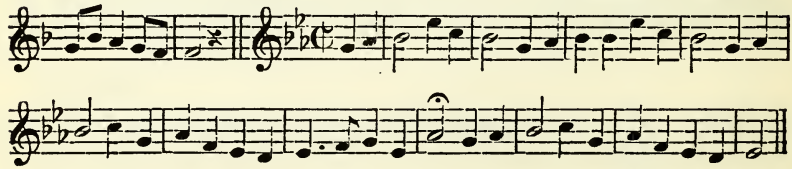
25 Brahms: *The Little Dustman.*



26 Gluck: *Orpheus.*



27 *Traditional English.*



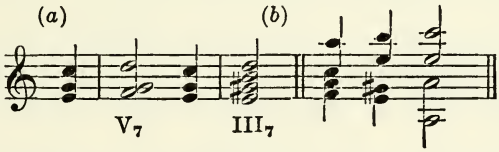
CHAPTER X.

The Mediant Harmony iii and III′.

161. **The Mediant Triad,** built on the third degree of the scale, is *minor* in a *major key*, and *augmented* in the *minor*.

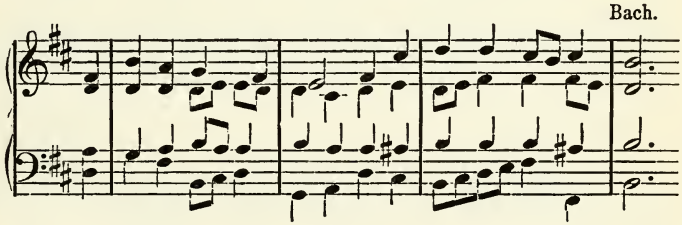
It may be used as a substitute for the dominant harmony (a), and is frequently employed when the 7th of the scale is used consecutively (b):—

Ex. 165



In a major key the mediant triad is often written in the major mode, creating a demand for the submediant. It is also written in the major mode when it becomes the dominant of the relative minor key:—

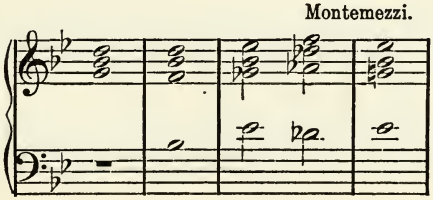
Ex. 166



In older compositions the mediant harmony was sparingly used, especially in the augmented mode. It is more useful to the modern composer who expresses himself by means of peculiar dissonances and the complex harmonies that reflect the spirit of the times.

Ex. 167 shows a chord on the small mediant in a major key:—

Ex. 167



The next example shows the mediant chord between two dominants:—

Ex. 168

Berlioz. Moussorgsky.

Ex. 169 shows the mediant chord, major mode, taken as the tonic of a new key. Continue the figure on ♭7, ♭2, etc.

Ex. 169

Wagner: *Tristan and Isolde.*

C:

When playing the excerpts for analysis, note first how many of the chords can be recognized by ear, then confirm by the notation. Note especially how the mediant chord is approached and left:—

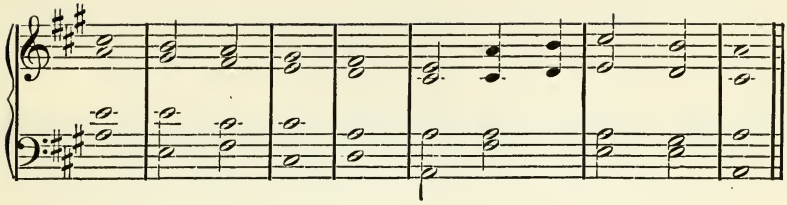
Ex. 170

1 Beethoven: Op. 10.

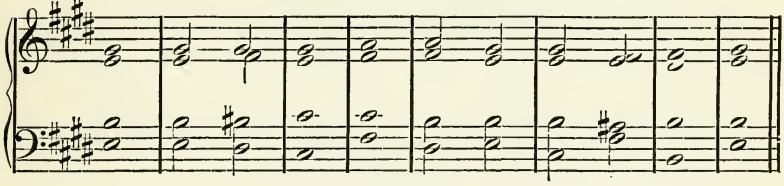
D. P.

2 Schumann.

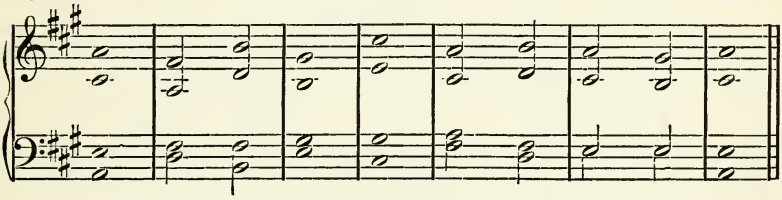
3 Bacon: *Chant.*



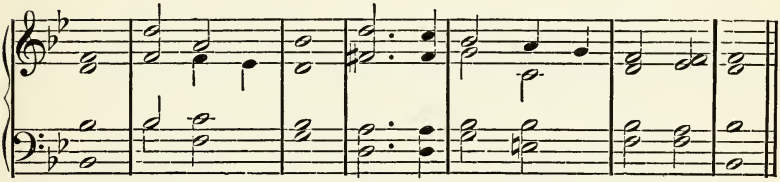
4 Propert: *Chant.*



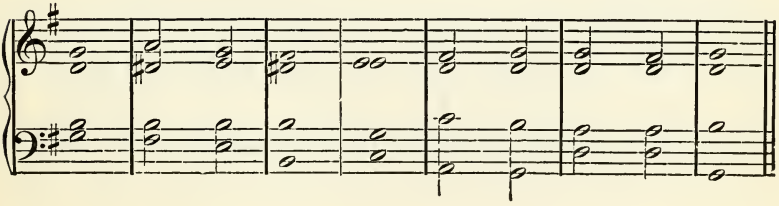
5 Aldrich: *Chant.*



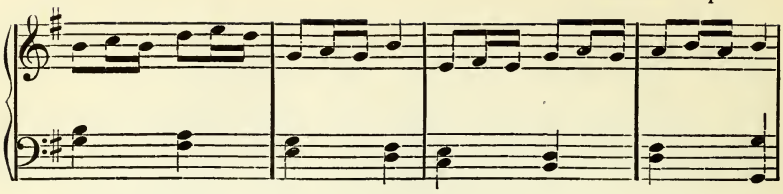
6 Ouseley: *Chant.*



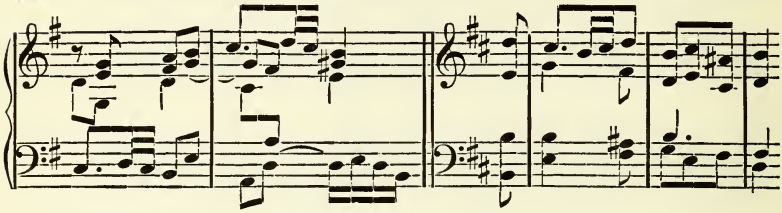
7 Novello: *Chant.*



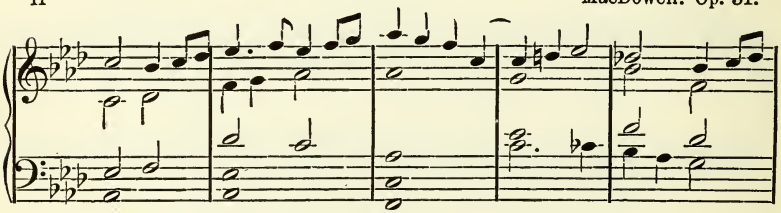
8 Beethoven: Op. 79.



9 Bach: *Fugue.* 10 Bach.

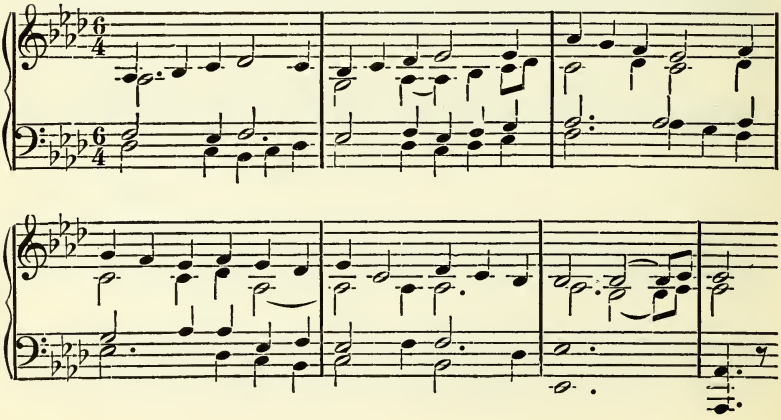


11 *MacDowell: Op. 51.

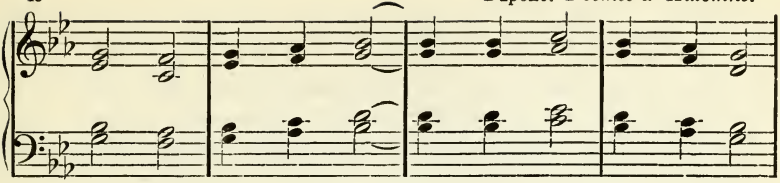


* Used by permission of Arthur Schmidt, Publisher.

12 Wagner: *Parsifal.*

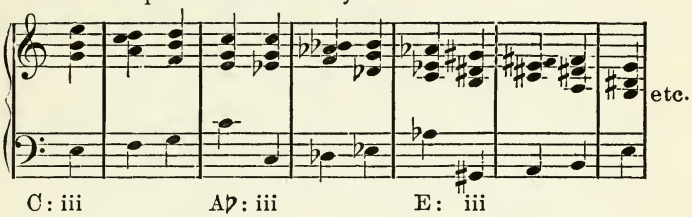


13 Dupont: *Poemes d' Automne.*



Continue this sequence in other keys:—

Ex. 171



Play chord-groups with the mediant both preceded and followed by each chord of the preceding lessons.

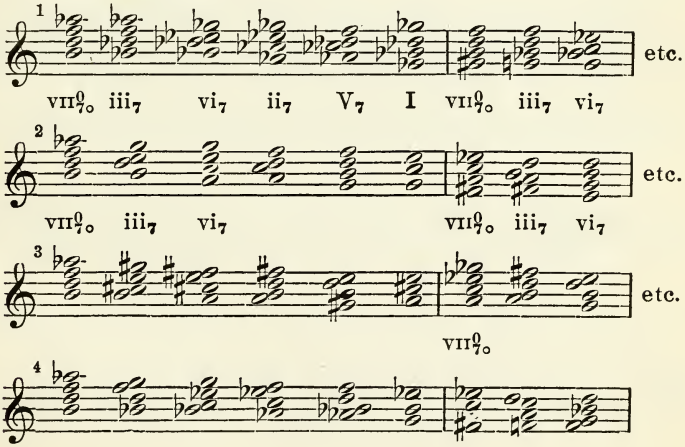
For example, I-VII°-iii-vi-IV-V_7-I, I-vi-iii-IV-II_7-V_7-I.

I-ii-iii, etc. i-III′-VI-II°, etc.

I-III^3-vi-ii, etc. I-iii-ii, etc.

162. Beginning with a diminished-7th chord, alter to a 7th chord of the second species, by lowering any two voices one small 2nd (either chromatic or diatonic), and take it as a mediant-7th chord, resolving on the submediant-7th, etc.

Ex. 172



163. In harmonizing melodies, the mediant and subdominant chords should not be used consecutively unless the 7th of the scale, which is the 5th of the mediant, is both *taken and left by step.* Substituting the mediant and submediant chords for the dominant and tonic results in many compound chords and interesting bytones. After the melodies have been harmonized in a simple way, embellish the bass and employ suspensions in other voices. The mediant triad is very satisfactory for one of the middle cadences in melodies of eight or more measures. Harmonize the scale (both modes) with the outside parts moving in contrary direction; also beginning on the scale-3rd in the upper part and the 1st in the bass, major mode.

In the original work one should consider the chord degree falling on important rhythmical points and the most vital words of a song. Observe this in the songs of Strauss, Elgar, Moussorgsky and the Wagner operas. Note especially the kind of cadence employed for various sentences: Declarative, Interrogative, Exclamatory, etc.

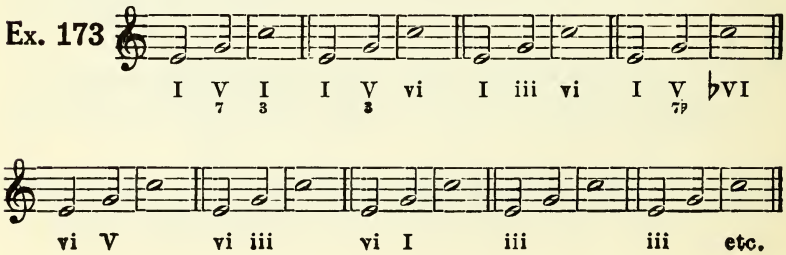
The dominant harmony is the brightest in key. When the mediant is substituted, the major mode is often employed to retain the brightness. If a somber mood is desired, the minor mode of the mediant chord is sometimes substituted for the dominant. Note this in No. 13 of Ex. 170 and in Ex. 178.

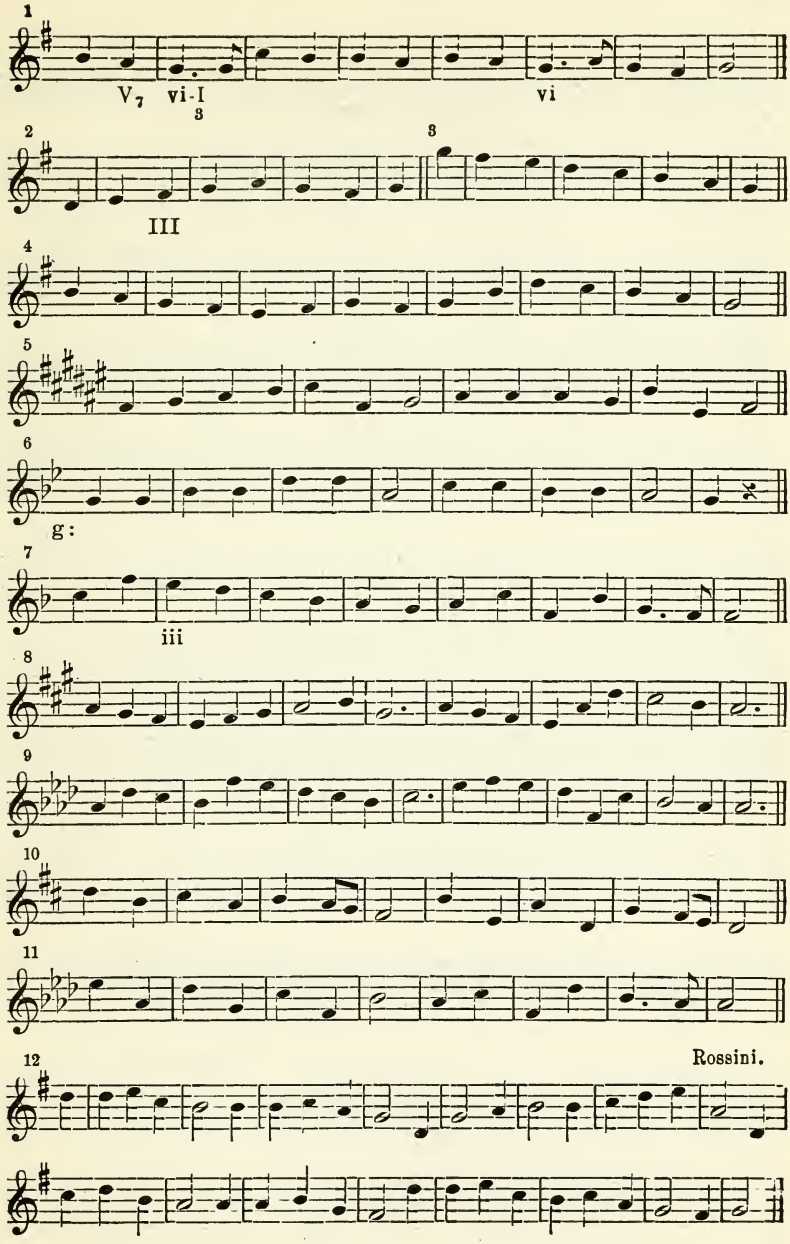
In looking for contrast and coherence in the long melodies, compare the phrase cadences.

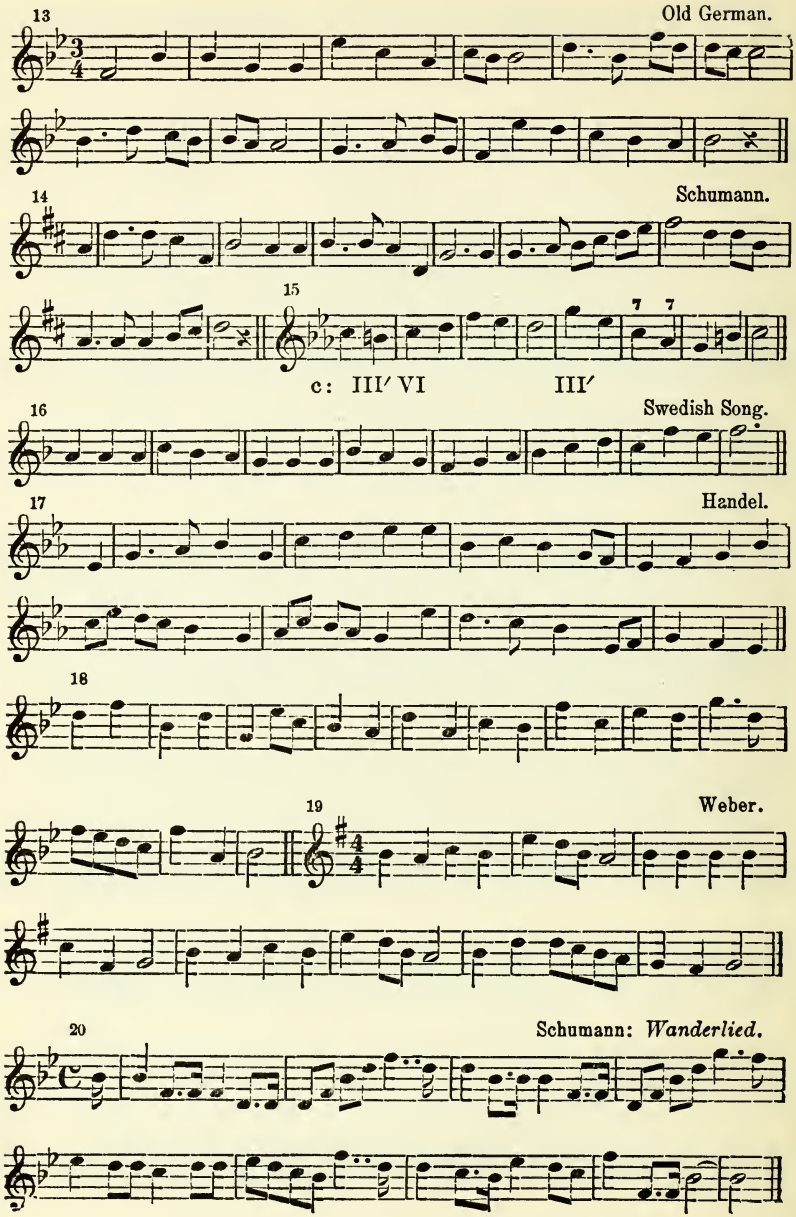
Contrast, proportion and rhythm will always be elements of art, so when we make the study of music the study of material in relation to these things, we are dealing with vital, lasting elements. Harmonic treatment has changed vastly and will probably continue to do so.

See how many different harmonizations can be made by taking each tone of the following pattern as root, chord-3rd and chord-5th, not necessarily closing with a cadence. The nature of G (scale-5th) permits its use as a chord-7th, and C (the tonic) can be employed as both seventh and ninth, the latter with the small 7th as root.

Ex. 173




1
V7
vi-I
3
vi
2
3
III
4
5
6
g:
7
iii
8
9
10
11
12
Rossini.


13
Old German.
14
Schumann.
15
7 7
c: III′ VI III′
16
Swedish Song.
17
Handel.
18
19
Weber.
20
Schumann: *Wanderlied.*

21 Bohemian Folk-Song.

22 Welsh Song.

23 Scotch Folk-Song.

CHAPTER XI.

Chromatic Harmonies.

164. An *altered or chromatic chord* is one which contains one or more tones foreign to the scale, without effecting a modulation. If the harmony following the altered chord is in the same key as that preceding it, there is no modulation, and the altered chord is regarded as chromatic in that key. If the harmony following the altered chord leads to a cadence in another key, modulation is effected and the altered chord is not considered chromatic, but becomes a diatonic chord of the new key :—

Ex. 174

(*a*) (*b*)

II_7 V_7

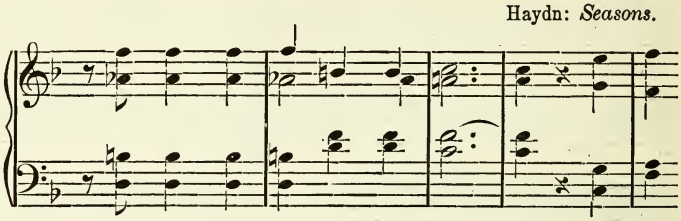
In the foregoing example, at (a) the altered D chord suggests the dominant-7th chord of the key of G; but the following cadence defines the key of C, consequently there is no modulation, and the D chord is the supertonic-7th—a chromatic imitation of the dominant-7th. At (b) the harmony following the D chord unmistakably establishes the key of G, so the D chord is considered a dominant 7th of the key of G in which it is diatonic.

Key is the result of relationship, and no single chord can establish it, except the *second inversion of an accented triad*, which asserts itself as a new tonic.

165. Prout says: "All chromatic chords are *borrowed* chords." Chromatic chords may be used consecutively without obscuring the tonality if the chromatic tones are borrowed from both the flatter and sharper sides of the key:—

Haydn: *Seasons.*

Ex. 175

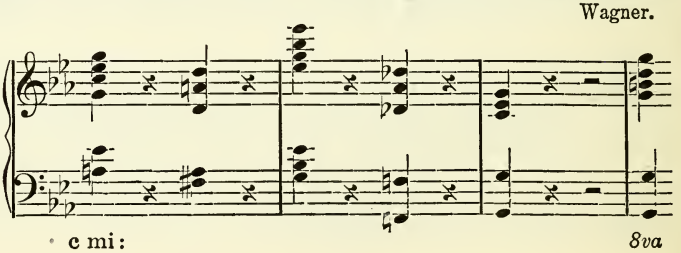


There was a time when it was not considered good writing to "borrow" from any but nearly related keys. One has only to look at a few pages of the best modern music to see that all of the key material is used when needed. There are seventeen different degrees of notation within the octave, which composers use according to the desired effect and the melodic or harmonic relation in which the material appears. Every tone within the octave belongs to key, and what would be considered chromatic in one mode of a scale might be diatonic in another. Every tone of the twelve-tone scale is considered diatonic. On that basis there are no chromatic tones, no such thing as "false relation," and many augmented-6th chords that are not considered possible on the old "borrowing" basis.

Lest the mode of the key be lost, it has been considered better that minor keys should borrow from minor only. Major keys can borrow from both major and minor keys. In Ex. 175, Hadyn borrowed B♮ from the dominant key, and A♭ from F minor. In Ex. 176, Wagner borrowed A♮ and F♯ from the key of G minor, the dominant key, which is offset by D♭, borrowed from F minor, the subdominant key.

Wagner.

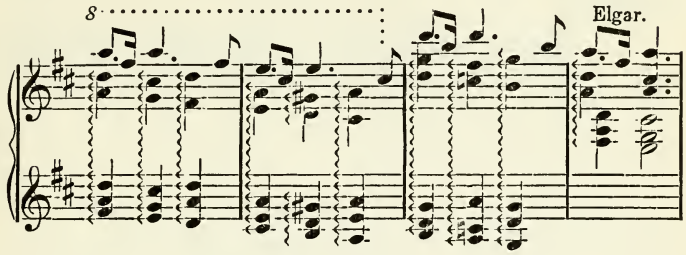
Ex. 176



Observing the modulations of the master composers, one so often sees that the keys are selected from the two sides of the original key. Note this particularly in Bach.

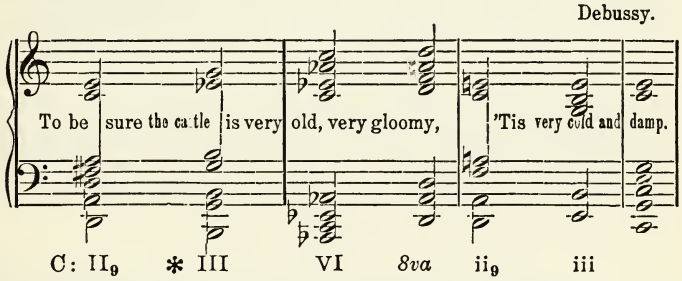
In the following example, the first phrase ends in the key of A; in the second phrase C♮ suggests the key of G, the flatter side of the original key of D:—

Ex. 177



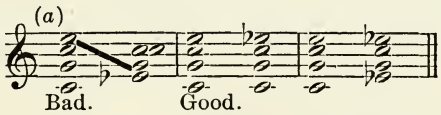
In Ex. 178 note the wierdness of the mediant chord (*), taken as a substitute for the dominant, which would naturally follow the supertonic harmony. Both the mediant and submediant chords are borrowed from the key of C minor:—

Ex. 178



166. If a tone occurring in two consecutive chords is chromatically altered in the second one, it is *usually* best to keep the altered tone in the same voice, especially if both chords have the same root;—

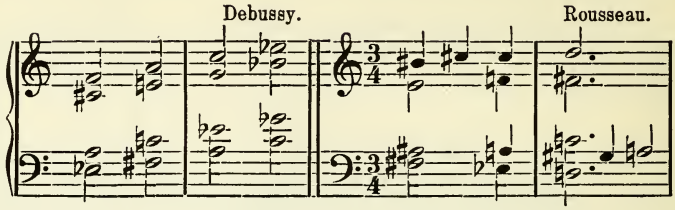
Ex. 179



The progression at (a) is called *False Relation.* It is not considered false relation when the altered tone becomes a part of a dissonant chord.

In Ex. 180, the altered tones all become components of seventh chords:—

Ex. 180



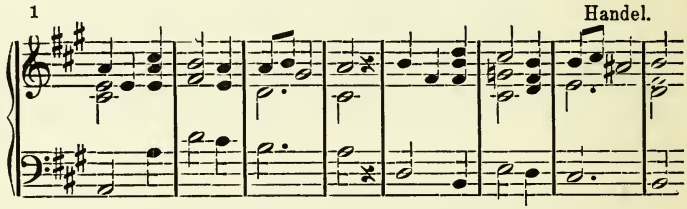
CHAPTER XII.

Modulation Continued.

167. In the study of modulation, one important factor is the selection of keys. As seen in the preceding lessons, the simplest modulations are to the keys whose tonics are distant a pure interval from each other. The nearest related keys to any major key are its dominant, subdominant, and the relative minors of the three keys.

168. The new key is generally considered from the beginning of a phrase or section. For example, in the excerpt from Handel, there is nothing to indicate a change of key until the G♮ appears, but the entire phrase should be considered in the key of B minor. Note the means of modulating in the other excerpts:—

Ex. 181



a. When approaching the new key, avoid the use of a tone that will reaffirm the old key. For example, F, when approaching the key of G, and B♮ when approaching the cadence in F.

b. On general principles, the affirmation of the new key is not heard until the cadence section, but the return to the tonic key is usually at the *beginning* of the phrase instead of the close.

169. The modulation is said to be *complete* when the new key is confirmed with both rhythmic and harmonic cadence.

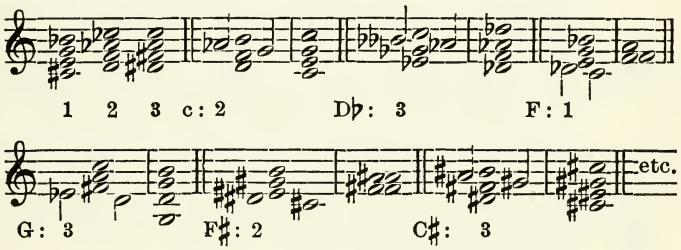
a. It is a suggested modulation when the expected new tonic is not heard, or when it falls on a weak metric position. Sometimes the modulation is not decisive until the new material is carried over into another phrase. This often occurs when the substitutional harmonies are employed.

b. What sometimes appears to be a modulation is a change of mode produced by borrowing from the minor mode of the key.

170. One of the simplest means of modulating, in fact so simple that it is hackneyed, is by means of a diminished-seventh chord. Since by enharmonic change any tone of the chord may be taken for root, only three chords are necessary for modulation to twelve keys: Ex. 182, No. 1.

a. As vii7 is only diatonic on the seventh degree of the minor scale, it is only necessary to choose a chord that contains the seventh of the desired key, then notate it accordingly, after which it may be converted into a V7 of the new key, the latter confirming the key better because of the scale-5th, also the repetition of the progression chord.

Ex. 182

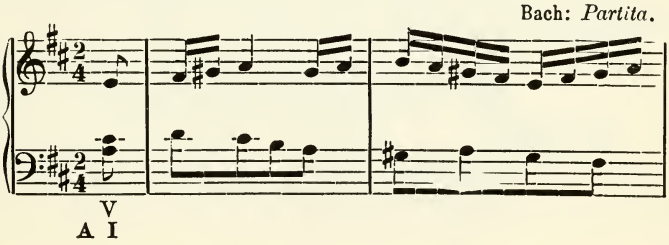


b. Analyze the foregoing examples to see what enharmonic changes of notation were made, then write them in open position, *modulating to every* key. If possible, avoid placing the root in the bass.

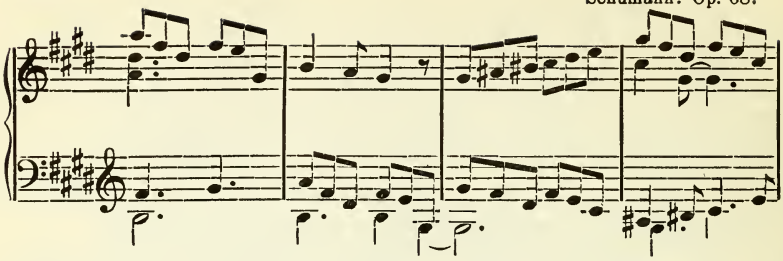
171. The use of a tetrachord which includes decisive material of the new key is very effective:

Bach: *Partita.*

Ex. 183



Schumann: Op. 68.

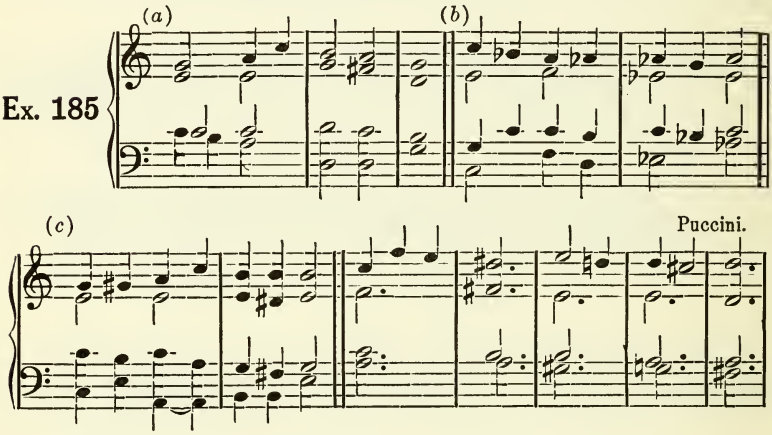


172. As the new key is usually confirmed by V7, the latter is then the essential chord to bear in mind, and if the cadence is extended, also the chords that lead to V.

a. Another principle of importance is that of weakening the tonality of the key that is being left. This can be done by:

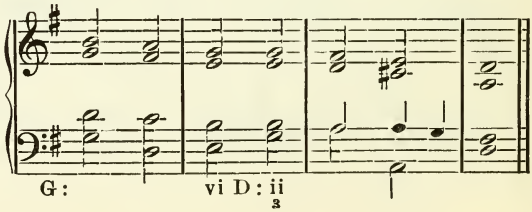
Using substitutional chords, (a), Ex. 185.
Borrowing from the minor mode of the key, (b).
Use of chromatic alterations (c).

Ex. 185



173. A very frequent means of modulating by a common chord is taking vi of the original key for ii of the new:—

Ex. 186



174. A modulation may be effected by taking any chord in key for another. Ex. 187 shows the C chord taken as another diatonic, also for a chromatic chord (b):—

Ex. 187

(a)

G IV F: V e: VI C: i

B♭ ii E♭ vi A♭ iii g: iv

(b)

B♭ II E♭ VI A♭ III D♭ VII

Eventually, a new key is confirmed by the use of a tone characteristic of that key, or some kind of a cadence that includes the tonic harmony of that key. As shown again and again in the preceding lessons, the second inversion of a triad falling on the accent always *affirms* a new tonic which may be *confirmed* by the dominant-7th of the new key. Taking a substitutional chord for the primary chord and *vice-versa* is both easy and effective, especially on the submediant chord a large third below. Changes of key by means of a common chord may be effected in the following way:—

Diatonic may be taken for another diatonic.

Chromatic may be taken for a diatonic.

Diatonic may be taken for a chromatic.

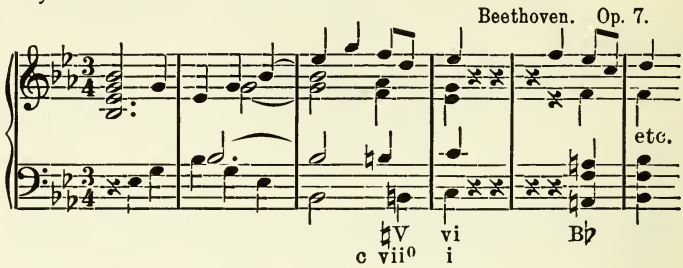
Chromatic may be taken for another chromatic.

Work out this principle at the keyboard, in many keys, ***both modes.***

175. Modulating to unrelated keys, the change is sometimes smoother by passing through another related key.

Observe that the tonal relation of scale applies to key relationship. In Ex. 188, E♭ is IV of B♭. Melodically, (c), the scale-2nd would naturally be taken on the way from scale-4 down to tonic, just as Beethoven chose the keys.

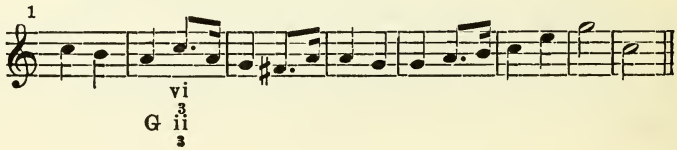
Ex. 188



176. As IV does not contain Ti, scale-7th, the use of it does not confirm the key as well as V7. If it is necessary to employ it, make up the lack in quality by quantity. The melody by Reinecke, No. 8, Ex. 189, illustrates this. For the return to the key of G at bar nine, IV-I is repeated in the next section. This little melody is very interesting. The first section requires the three primary harmonies, I-IV-V-I. The employment of their substitutes in the next section provides a pleasing contrast, and by the repetition of those harmonies in the third section, the key of e is confirmed. This unifies the work, because these harmonies are primary in the key of e, and the melody, which is the same as the first section, is harmonized in the same way. As the next two bars (7th and 8th) may be in the key of D, that illustrates paragraph 175. In its relation to the original key of G, e is the scale-6th, the natural resolution being *down* to D, and the resolution of D *up* to G. Notice the rhythmic proportion of keys.

It has been said that it is vastly more important and effective to employ various inversions and chord positions than many harmonies. On the same principle, it is more important that one should learn to use the various harmonies skilfully than it is to modulate frequently, the latter being the resort of the unskilful. Unless the idea to be expressed requires a change of key to one better suited, there should be no modulation. The modulations required in the following were written to provide practice for the student, and *not* because it is considered better to have them in such short melodies.

Ex. 189



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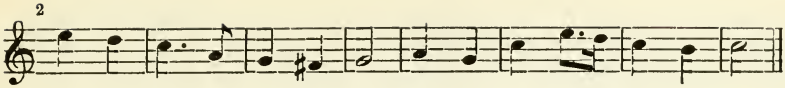

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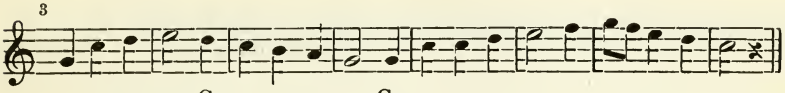

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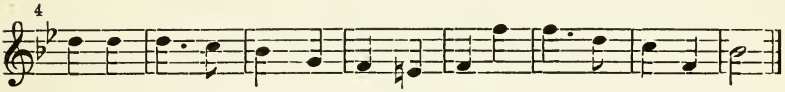

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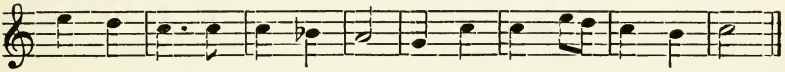

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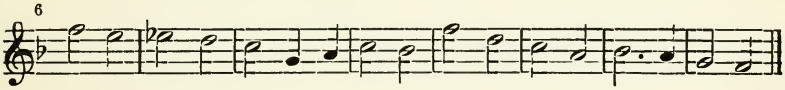

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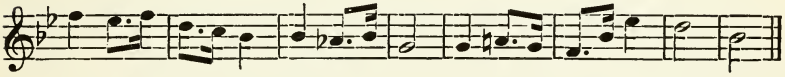
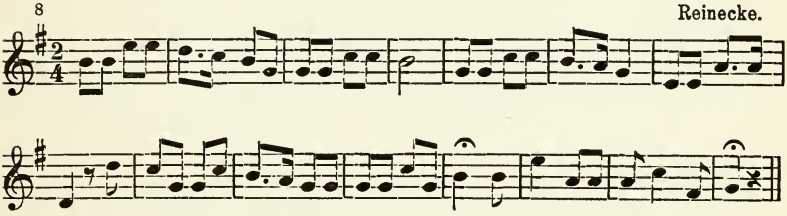
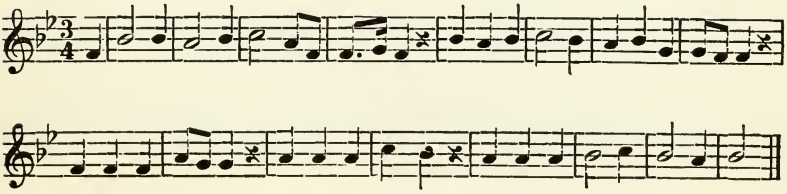


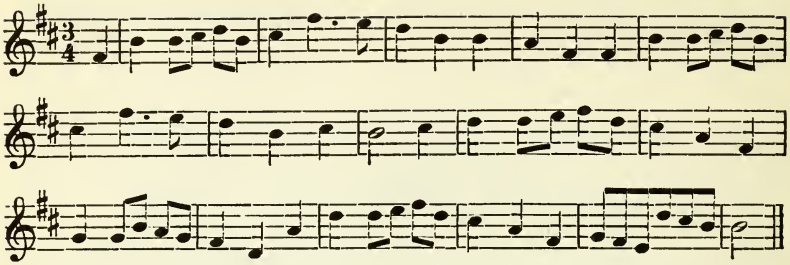
8 Reinecke.



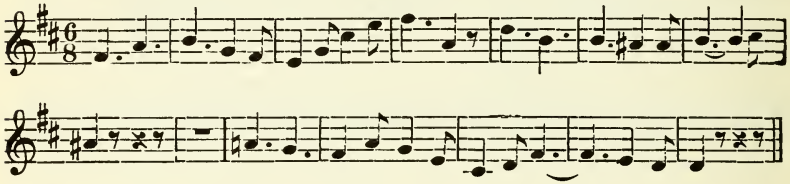
9 Mozart.



10 Irish National Air.



11 Brahms: *To a Violet.*



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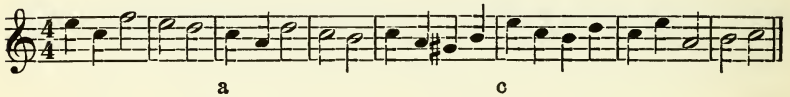


a c

177. In the larger forms, unless there is some figural work, the first four-bar phrase is generally in the tonic key. It is easier to modulate if the first phrase closes with a tonic chord; as it suggests a completed idea, one anticipates a new key for the next cadence.

a. *Usually*, the first two bars of the phrase in the new key is made of material common to both keys, the confirmation of the new key falling in the cadence section, as mentioned before. In No. 2 of Ex. 197, the melody modulates in the first section. In that case, it is in good taste to use substitutional chords for the next, or a passing modulation on the way to the old key. That is much better than to reaffirm the transient key.

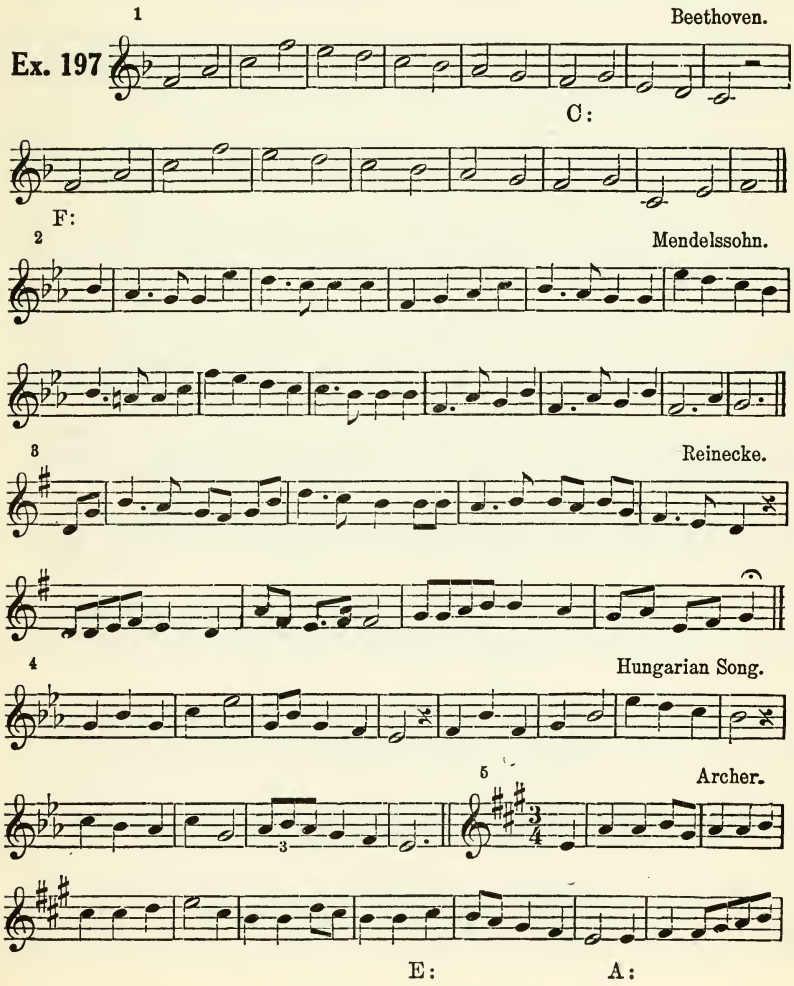
b. In key relation, the subdominant key is retrospective; for that reason it is not likely to be employed for the first change of key. In a Ternary form, the third part is quite likely to be in the subdominant key, and in sonatas, one hears it in the recapitulation, possibly in the development group. Because of this, very few melodies requiring the subdominant key have been included in this work.

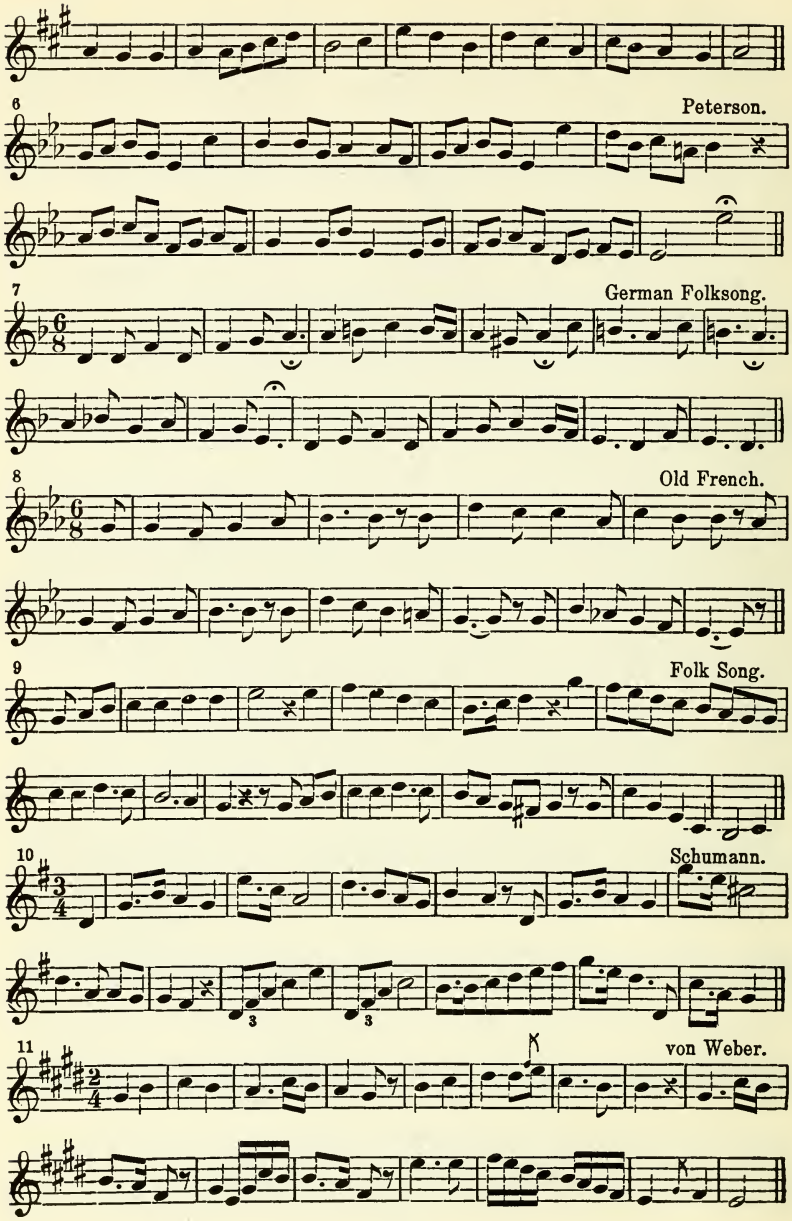
c. Space cannot be given to the amount of analysis the student should do before harmonizing the melodies or applying the principles in composition. Schumann Op. 68, and the Bach Album furnish delightful material that should be studied.

Melodies with changes of key require less variety of harmonic treatment.

Do not forget to make the changes of key coincident with the rhythmic groups.

There is one important thing that the student *must* remember: *The tones peculiar to the new key should not be introduced before the chords affirm or confirm the new key.*



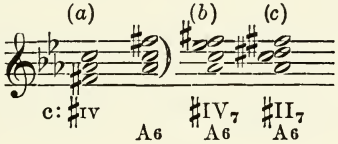

6
Peterson.
7
German Folksong.
8
Old French.
9
Folk Song.
10
Schumann.
11
von Weber.

12 English National Air.

13 Himmel.

178. In a minor key, ♯4 as root forms a diminished 3rd between the chord-root and 3rd. In the first inversion, this interval becomes an augmented-6th; the construction of the triad in this position being a large 3rd and augmented 4th.

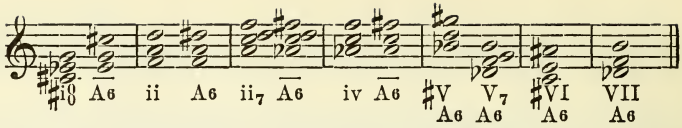
Ex. 198



The augmented-6th chord appears in three different types: the triad (a); in the first inversion with the seventh (b); and in the second inversion with the seventh (c). Some theorists designate these as the Italian (a), German (b), and French (c). Since leading theorists do not agree on all of the names, and they are of no importance, they will not be referred to as such in this book.

Borrowing both a flat and sharp when the chord occurs in the major key, one neutralizes the other and no modulation is necessarily effected.

Ex. 200



179. Theorists differ in their opinions as to the derivation of the augmented-6th chord. Some regard it as derived from the dominant only, others as a chord not built by superposed thirds. As it is constructed wholly of key material, why regard it as anything but another mode of the chord, built in the usual way by superposing thirds upon a given root? In the fundamental position, the only difference in the chord structure is the use of a *diminished third* instead of a small one.

At No. 1, Ex. 201, the third chord resolves on the following dominant and appeals to the ear as the supertonic chord, not another dominant. Again, in No. 2 the chords of the third measure demand the tonic-5th just as any first inversion of the subdominant harmony does. Why should the second measure be considered subdominant and not the third? They are simply different modes of the chord. Can one hear the fourth chord of example three as anything but the first inversion of a subdominant-7th? The relations in which it appears confirm it as such. In Ex. 245 the chords appeal to the ear as VII and V, and the relations in which they appear justify the classification as indicated.

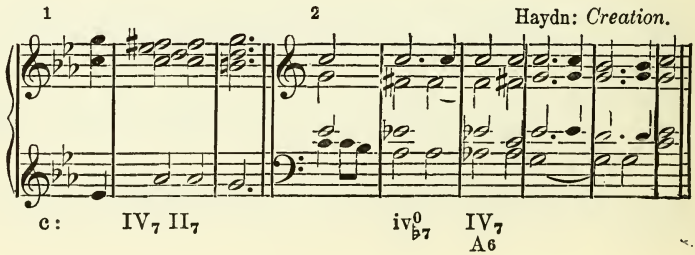
The augmented scale-4th may be root of the subdominant chord, or third of the supertonic, and employed (without effecting a modulation) in various types of chords *including* the augmented-6th.

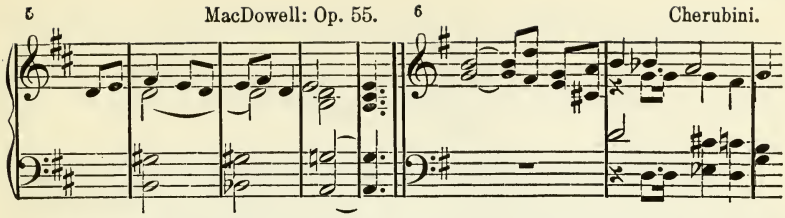
Sometimes only one tone of the interval resolves, the other *progressing* irregularly. If one of the assertive tones resolves, the ear is satisfied. This may be seen in many examples.

The progression by leap is not unusual, especially if the tone taken by leap is a root.

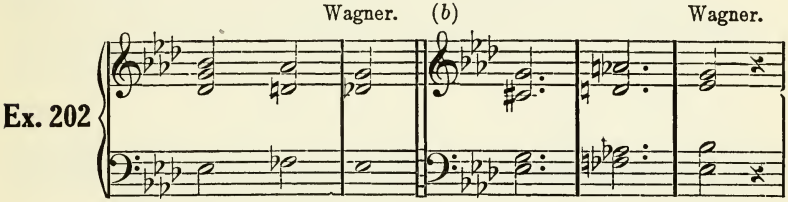
In the following excerpts, note both the approach and resolution, also the inversions. Is the mental effect other than that indicated? The relations in which these chords appear confirm the appeal to the ear as IV or II.

Ex. 201

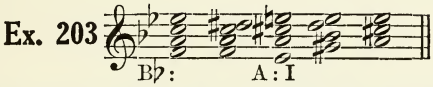




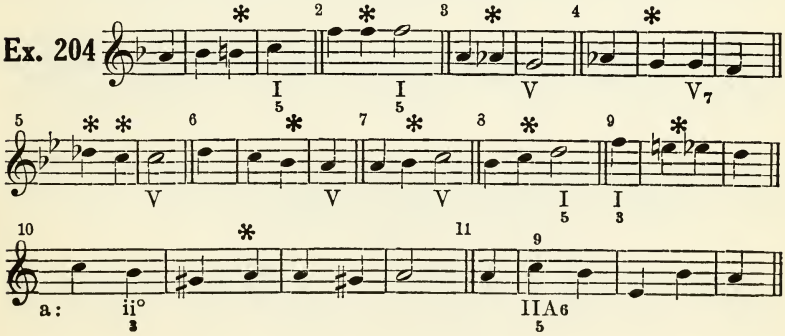
In the next example the augmented-6th chord is seen between the two dominants, and at (b) there are two successive 6th chords:—



180. A modulation to the key a small 2nd below may be effected by the enharmonic change of a dominant 7th to an augmented 6th, or *vice-versa:*—



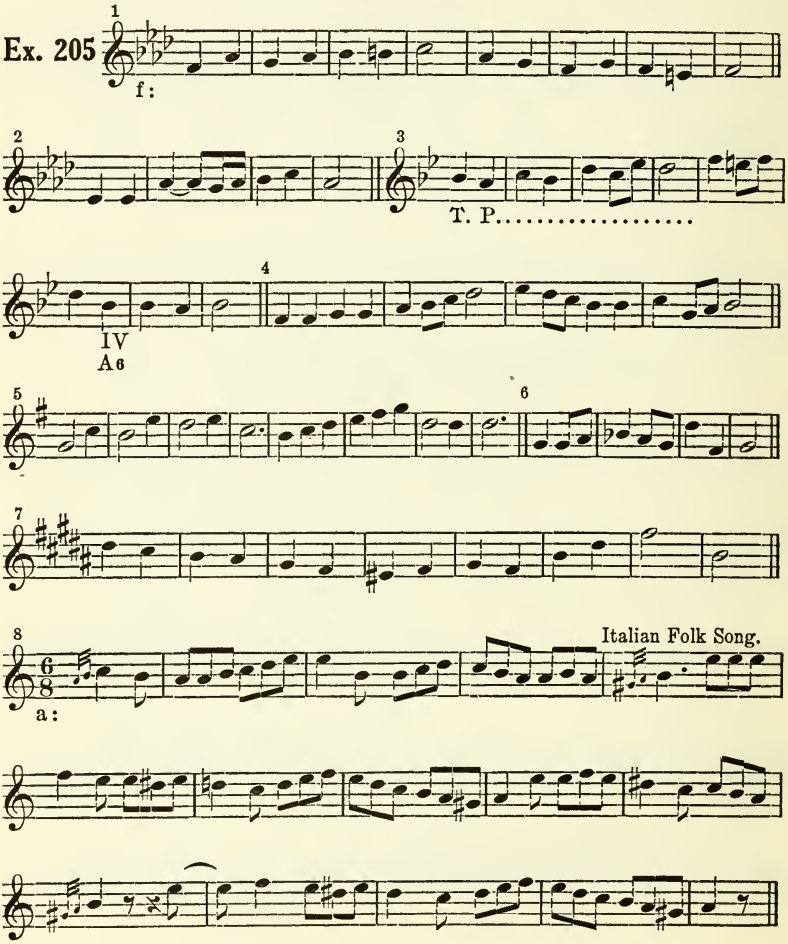
181. In harmonizing the following melodies, the augmented-6th mode of the chord will be formed by the small scale-6th and augmented 4th as components of either the subdominant or supertonic harmony, and may be employed in the same relations as the diatonic chords of the same name. The starred notes indicate where they can be employed. Write in three or four parts.



One might harmonize the longer melodies of Ex. 205 in the usual way, then see where the augmented-6th form of the chords would be possible or better. For example, No. 2 might be harmonized—I–V|vi IV,|etc., the augmented 6th making the approach to cadence in a con-
A6
trary direction.

This form of the subdominant harmony is useful in approaching cadence by contrary motion, also to add power to the passage. IV-I is a common means of expressing the heroic element.
A6 5

Ex. 205



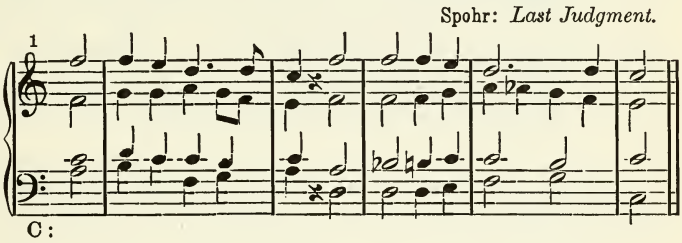
CHAPTER XIII.

The Small Seventh.

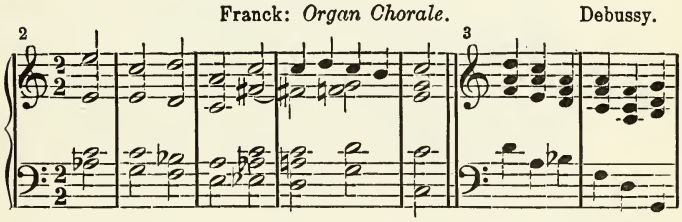
182. In the preceding lessons, the small seventh of the scale was employed as 7th of I demanding IV, also for modulation to the subdominant key. It is often used in the minor key when the voice descends in consecutive degrees.

In these examples ♭7 appears as root:—

Ex. 206

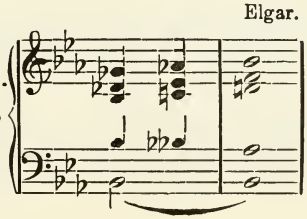


Ex. 207



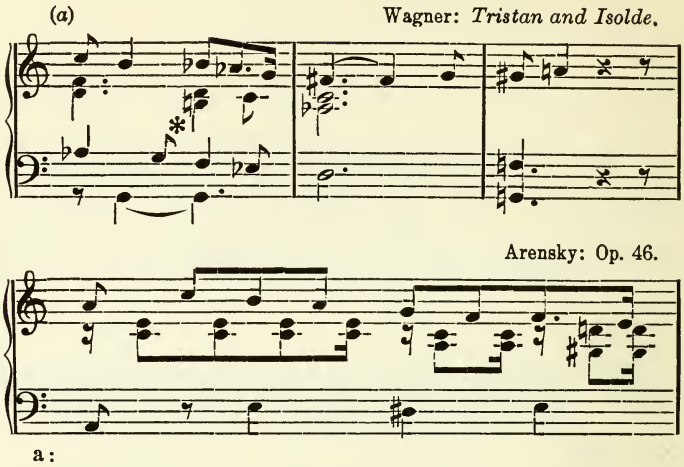
Note the effect of the small seventh and third in harmonic relation as used by Elgar:—

Ex. 208



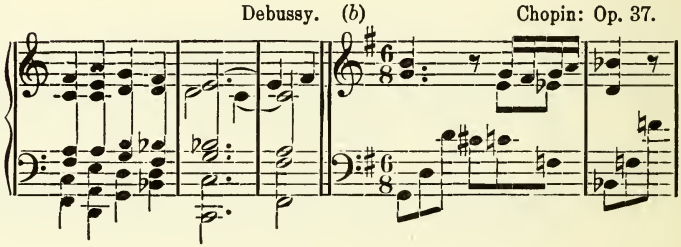
At (*a*) in the following example, both the large and small 7th occur in the same chord:—

Ex. 209



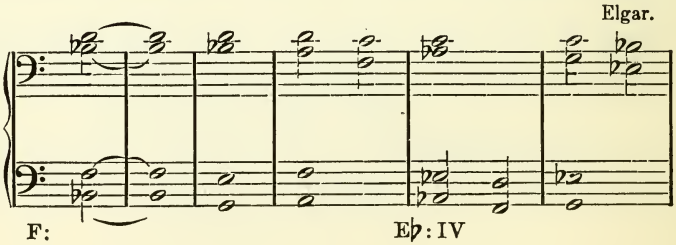
In Ex. 210, ♭7 occurs as root of a chord which is taken as diatonic in the key of F, and at (*b*) it is root of a dominant 9th:—

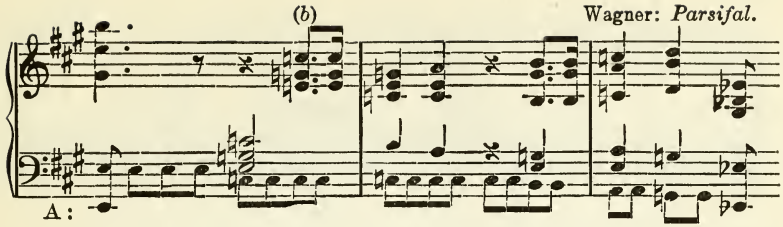
Ex. 210



In the next example, ♭7 appears as chord-5th; with the small 3rd also, the chord is taken as diatonic in the key of E♭. At (*b*) it becomes the 5th of a new tonic:—

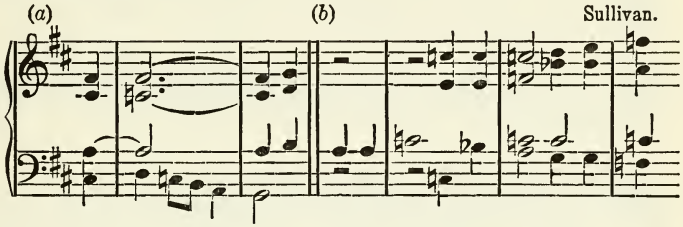
Ex. 211





In this the small seventh is taken as 7th (*a*), and root of a dominant 7th chord (*b*):—

Ex. 212

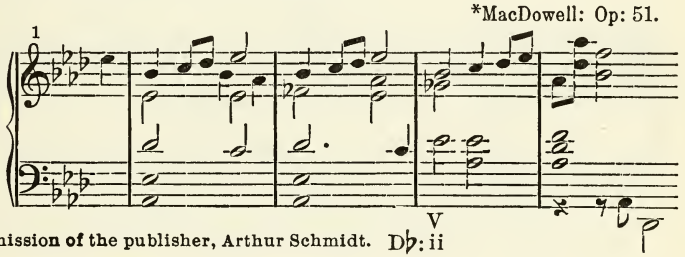


If one has trouble in identifying the chords in the analysis, play them without the chromatic alterations.

In learning to use chromatic tones, the same principle of chord relationship is followed as with the diatonic in the preceding lessons, each tone taken as root, third, fifth, etc., also embellishing tone.

Note the use of ♭7 in the following:—

Ex. 213



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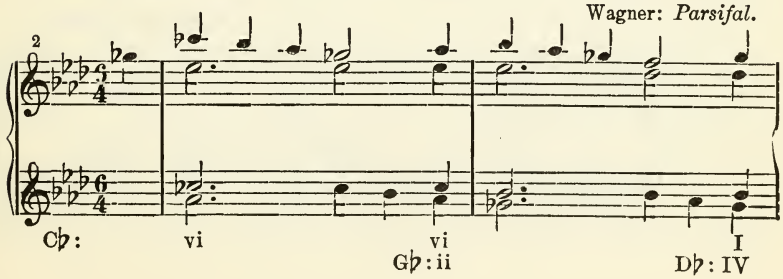
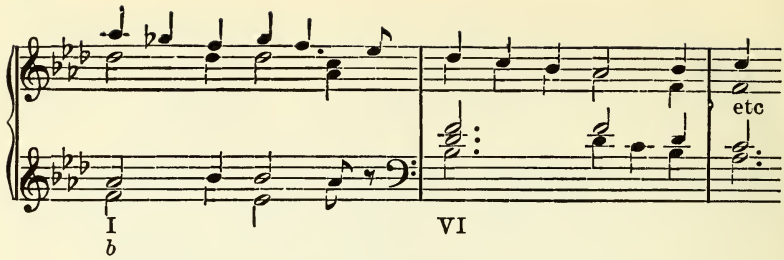
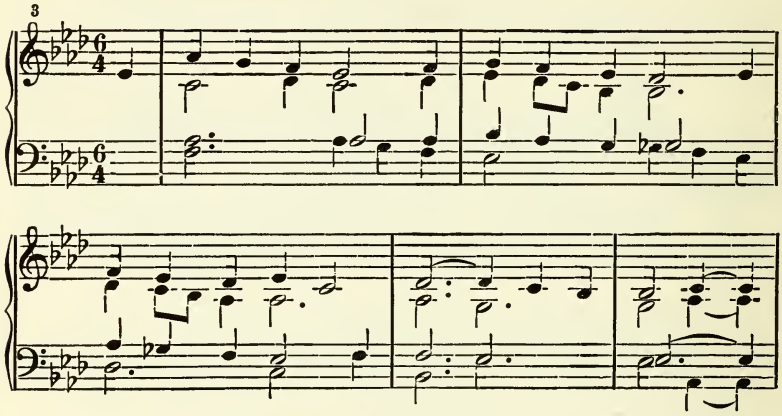
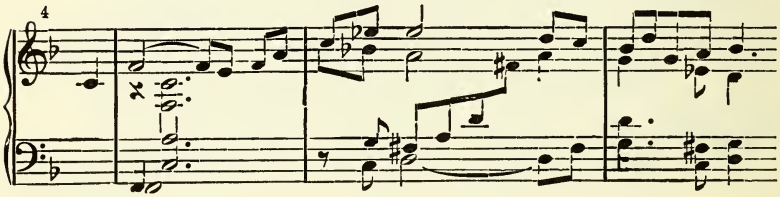






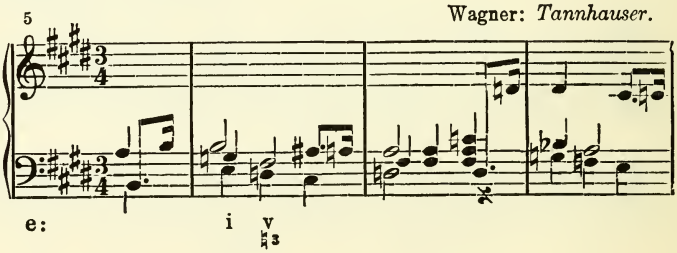
Schumann.

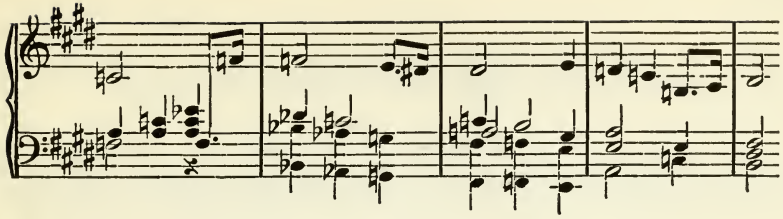


The next example is interesting, not only because of its beauty, but the tonality is so obscure:—

Wagner: *Tannhauser.*

Ex. 214





183. Employ the small seventh in harmonizing these melodies, and write others requiring some modulations.

Ex. 215

1 (a) German Choral.

B: E:

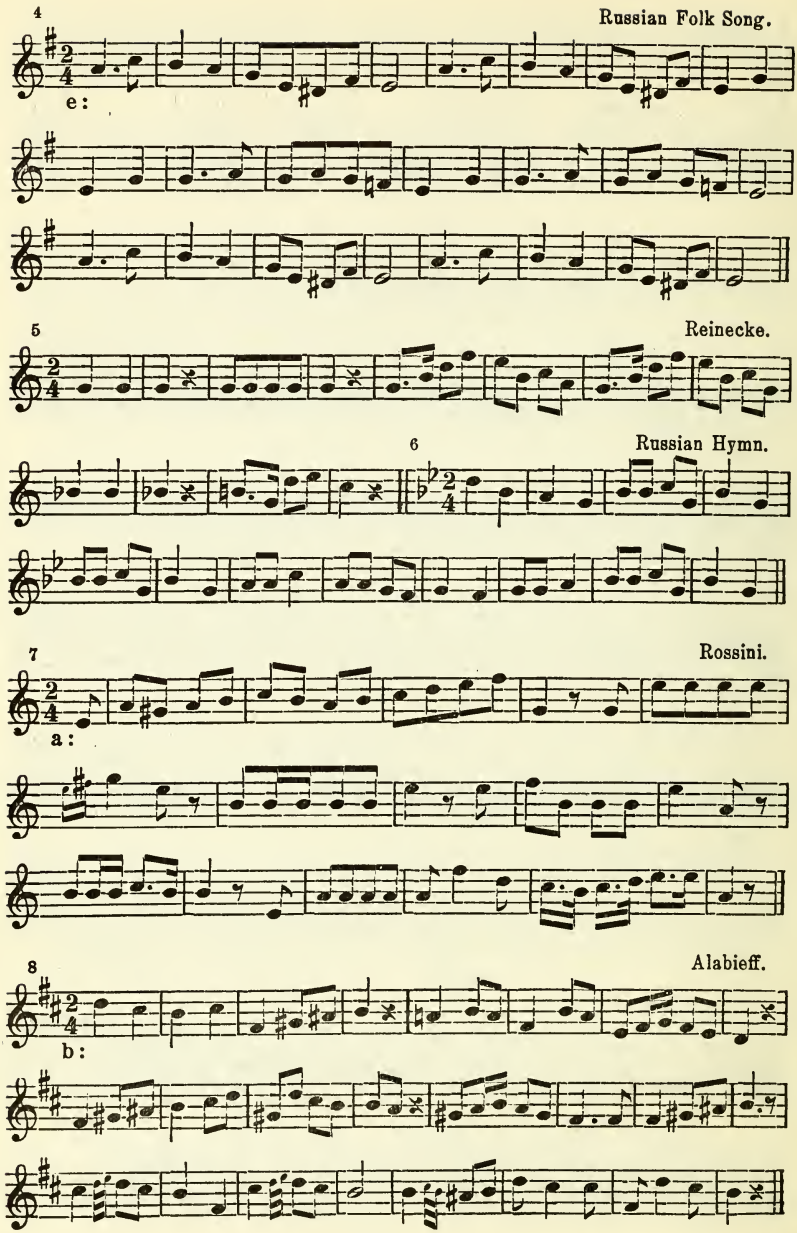
3 Old German Song.

a:

C: vii⁰ a: ii⁰

3 Folk Song.

H-10


4
Russian Folk Song.
e:
5
Reinecke.
6
Russian Hymn.
7
Rossini.
a:
8
Alabieff.
b:

CHAPTER XIV.

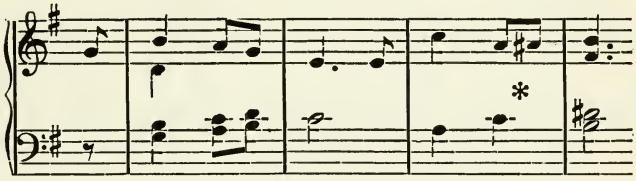
The Augmented Supertonic.

184. The augmented second of a key is a companion tone for ♯4, the two tones being very frequently used to embellish a tonic chord. Ex. 218 (*a*).

♯2 as root in the first inversion (major key), forms an augmented-6th chord resolving on III, suggesting a modulation:—

Schumann.

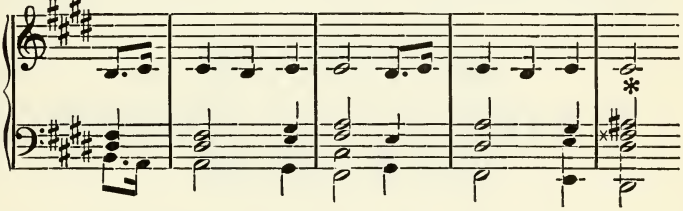
Ex. 216



♯2 as a chord-3rd with ♯4 transforms a subtonic chord to the major mode:—

Wagner: *Tannhauser.*

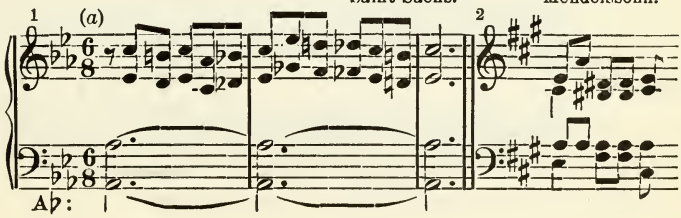
Ex. 217

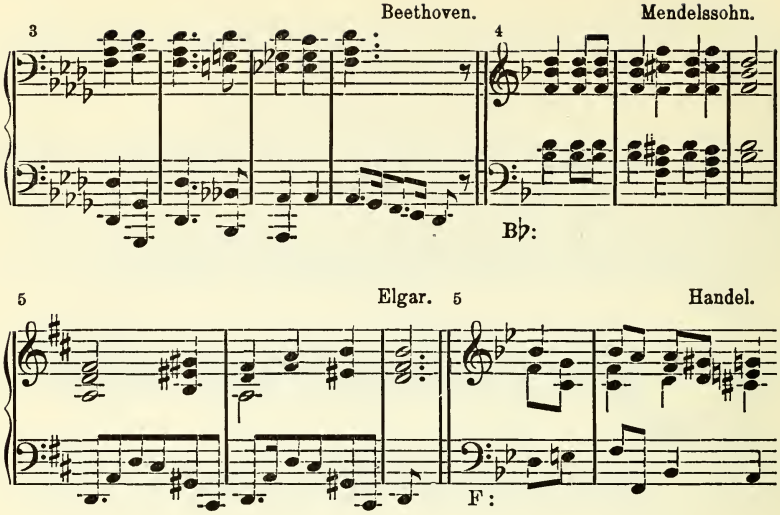


♯2 as chord-5th changes the mode of the dominant from major to augmented. Ex. 218, No. 4. In all chromatic chords the student should note the practice of great composers in regard to doubling.

Saint-Saens. Mendelssohn.

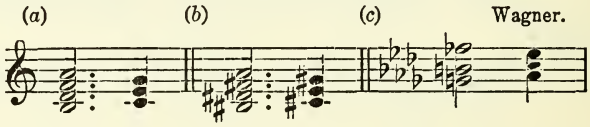
Ex. 218





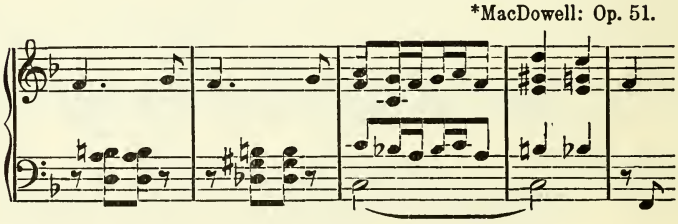
In this example, the Rheingold theme is given at (*a*); later, when the Rhein Maidens had lost their gold, it appeared as at (*b*); still later, when they asked for the return of the gold, the theme appeared as at (*c*):—

Ex. 219



In Ex. 220 ♯2 appears as root of the augmented-6th chord, and 5th of a dominant-9th chord:—

Ex. 220



*Used by permission of the publisher, Arthur Schmidt.

The next example shows ♯2 taken as 3rd of a new tonic :—

Ex. 221

Debussy: *Romance.*

This example shows ♯2 as chord-3rd and restoring the original key:—

Ex. 222

Heller.

In this the augmented-6th interval is a component of two different harmonies :—

Ex. 223

Grieg.

The following excerpt from Chopin, Op. 45, shows the sub-dominant chord left as the subtonic, which includes the augmented scale-2nd of the new key:—

Ex. 224

B♭: VII$_7$

Note the doubly augmented 4th at (*a*), and the doubly diminished 5th at (*b*):—

Ex. 225

(*a*) Beethoven.

(*b*) Franz.

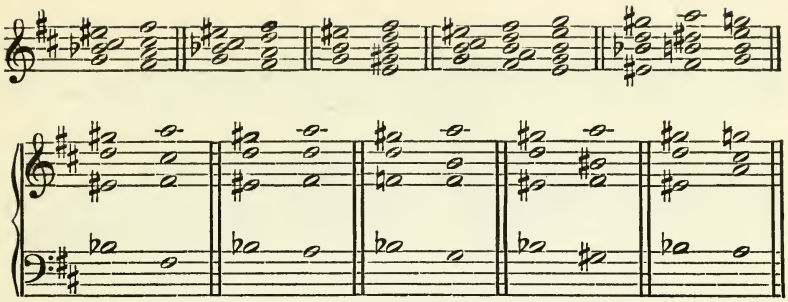
Strauss: *Reverie.*

Wagner.

Reduced.

In different keys take ♯2 as root, third and fifth; also resolve the augmented sixth on a tone taken as root, third, fifth, seventh, large and small ninth:—

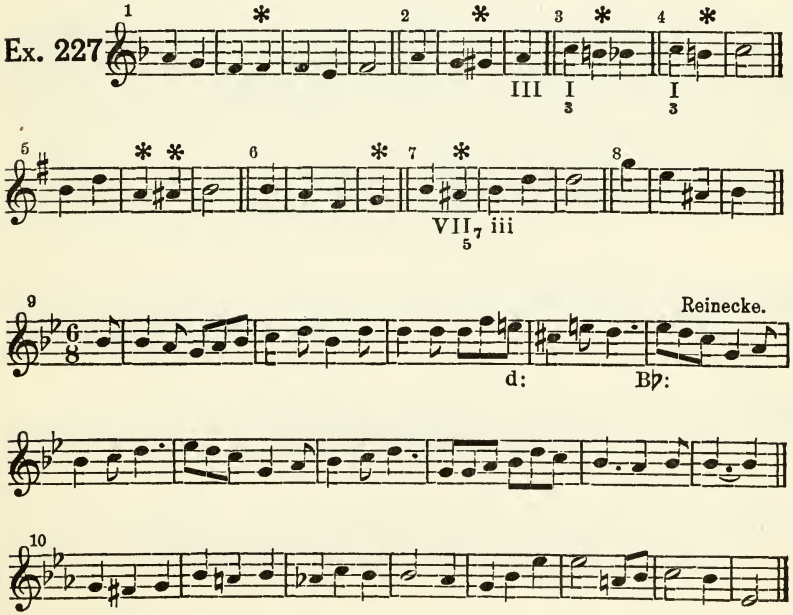
Ex. 226



Since the augmented fourth and small sixth are both components of the subdominant and supertonic chords, it is easy to understand why the augmented sixth is seen in both, the choice depending upon the relations in which they appear, as with the diatonic types. The augmented-sixth mode of a chord may be used when the text requires more brightness, also variety of tone color.

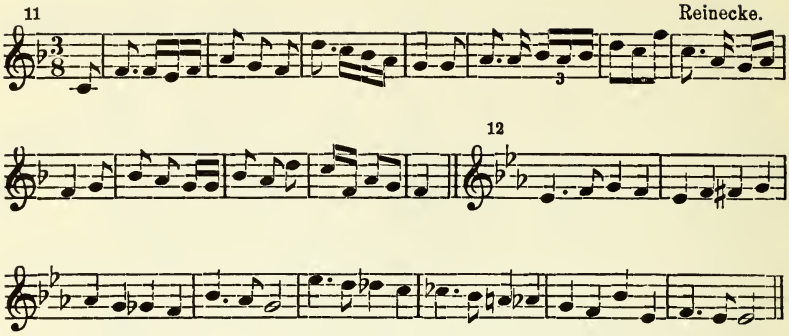
Harmonize these melodies or write others in which ♯2 may be employed with ♯4 as an embellishment chord, also as a component of an augmented-sixth chord:—

Ex. 227



11

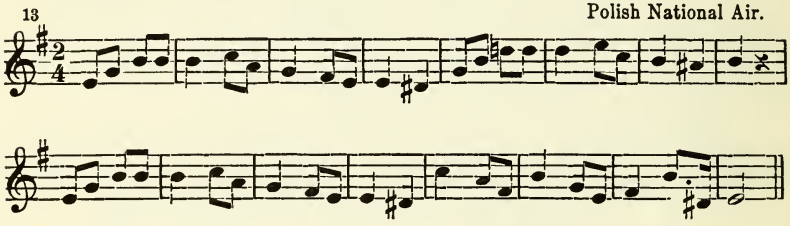
Reinecke.



12

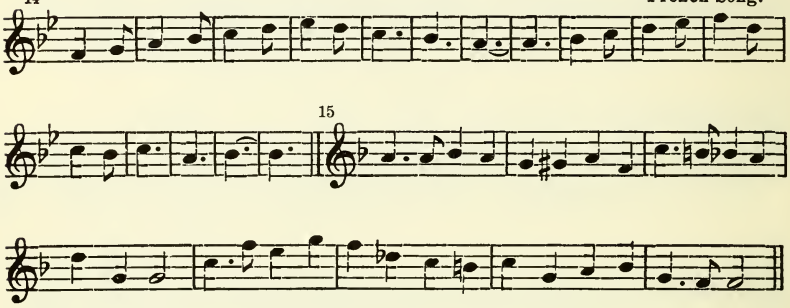
13

Polish National Air.



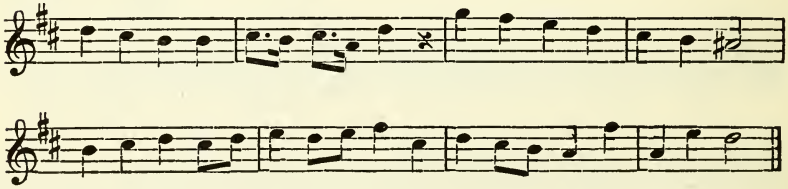
14

French Song.



15

16



CHAPTER XV.

The Augmented Fifth of the Scale.

185. ♯5 demands 6 of the scale. When ♯5 occurs as root, the chord may progress to any chord of which the submediant tone is a component. At (*a*), ♯5 is root of a V_7 resolving on vi. At (*b*), the chord progresses to ii_7. At (*c*), ♯5 appears as a chord-5th:—

Ex. 228

(*a*) Heller: Op. 45. (*a*) Schumann: Op. 68.

♯v7 vi G: ♯v7 etc

(*b*) Mendelssohn. (*c*) Schumann.

Note its use in this exquisite excerpt:—

Ex. 229

Delius: *Das Veilchen.*

As yon sweet flow - - er

Note the different species of seventh chords in this:—

Grieg: Op. 7.

Ex. 230

In these, ♯5 again appears as chord 3rd without a modulation:—

Wagner: *Rheingold.*

Ex. 231

Verdi: *Requiem.*

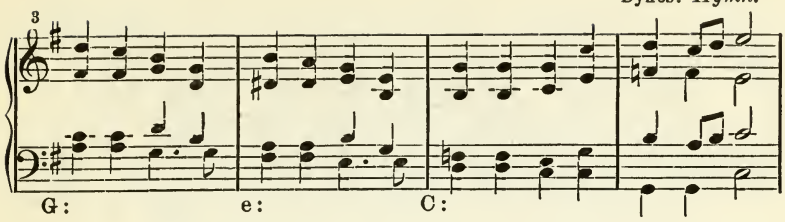
186. When ♯5 occurs as a chord-3rd, a modulation may be effected by taking the mediant chord as a new dominant of the relative minor key:—

Bach.

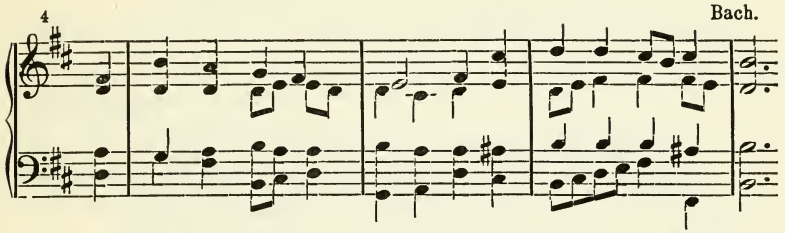
Ex. 232

a: V_7 i b: ii^0

Dykes: *Hymn.*



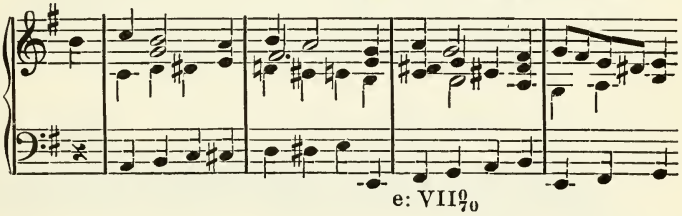
Bach.



In this example, ♯5 appears as a passing tone and as root of a chord taken as a diatonic vii$^{0}_{70}$:—

Rameau—Godowsky: *Rigaudon.*

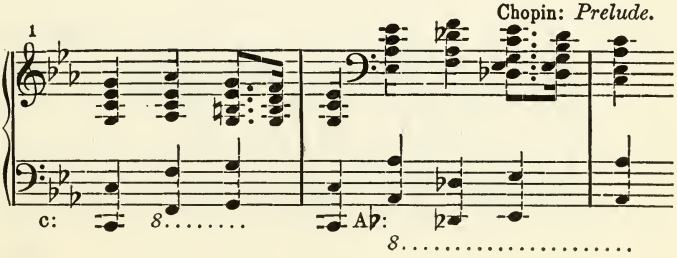
Ex. 233



187. Modulation by means of the submediant chord on the small 6th of the scale is very effective and interesting. Ex. 234 shows the diatonic VI taken as a diatonic I, also the chromatic VI taken as a new tonic:—

Chopin: *Prelude.*

Ex. 234



2 César Franck.

C: I

This example shows the seventh chord on the ♭6 taken as a dominant 7th:—

Humperdinck.

Ex. 235

A♭: V_7

Here are other interesting examples of chromatic chords taken as diatonic, chromatic as another chromatic, and diatonic for diatonic:—

MacDowell: Op. 55. Schumann: Op. 68.

Ex. 236

1 2

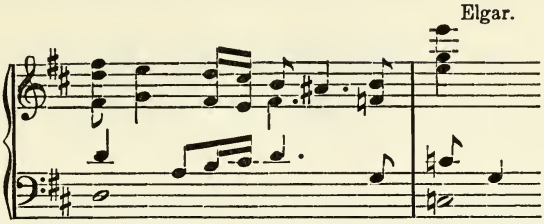
B♭: vi

3 Schumann: Op. 68.

♯V^0_{70}

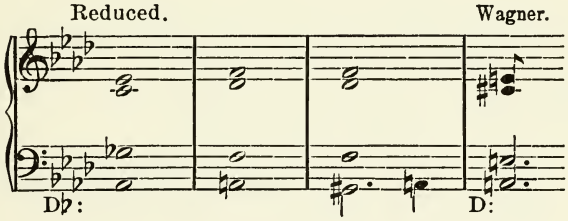
Ex. 237 shows the resolution of ♯5 on 6, the latter a component of a chromatic chord taken as a new V_7:—

Ex. 237



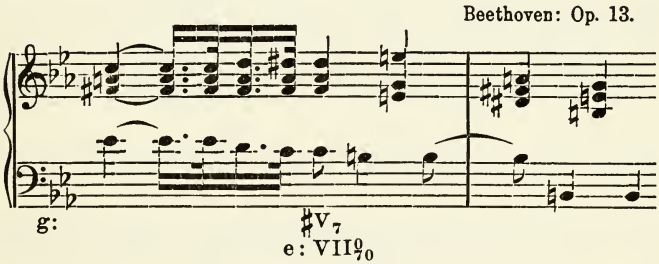
This shows an unusual progression: the ♯5 returns to the enharmonic of the scale 5th, which is taken as ♯4 leading to the key a chromatic small second higher:—

Ex. 238



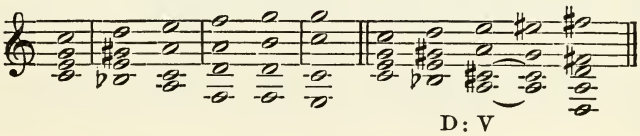
In this the chromatic ♯v is taken as a diatonic vii^{o}_{7o}:—

Ex. 239



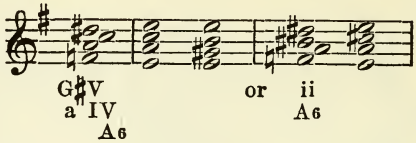
With unlimited "borrowing," the following combination is possible and useful for harmonic color:—

Ex. 240



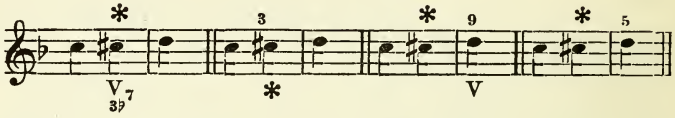
♯5 as root with ♭7 may be a component of an augmented-6th chord also effecting a modulation to the key a large second above:—

Ex. 241



Although these would rarely be used, harmonize them as indicated, employing an augmented-6th at the starred notes:—

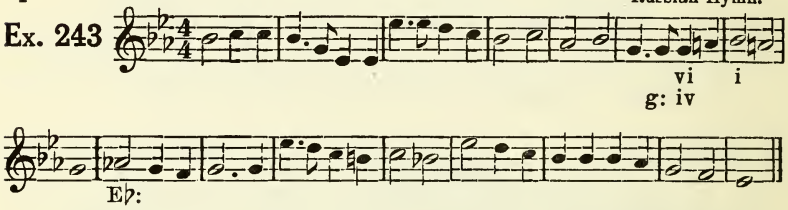
Ex. 242



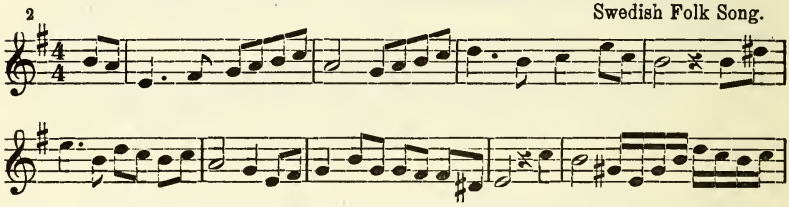
188. In harmonizing melodies, like any other chromatic tone, ♯5 may be employed as an embellishment or to change the mode of the chord in which it appears. Scan the melodies through first, noting the modulations and other unusual factors.

Ex. 243

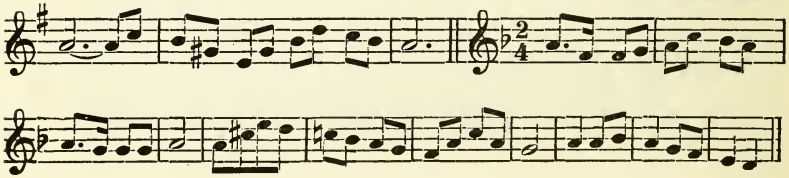
1 Russian Hymn.



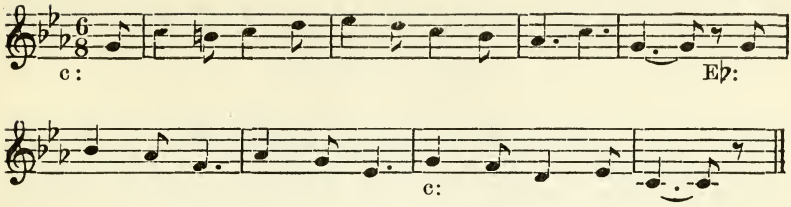
2 Swedish Folk Song.



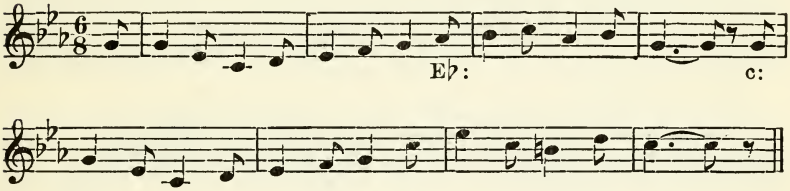
3 Swedish Air.



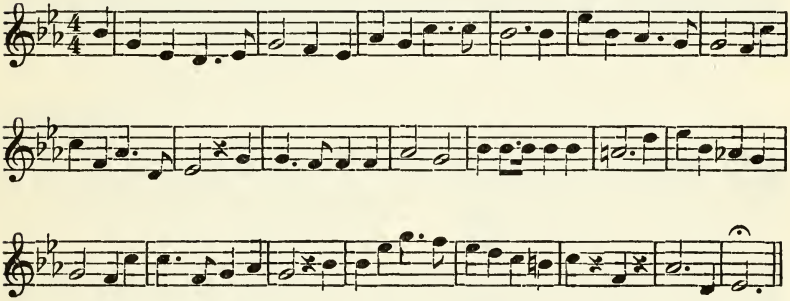
4 Swedish Folk Song.



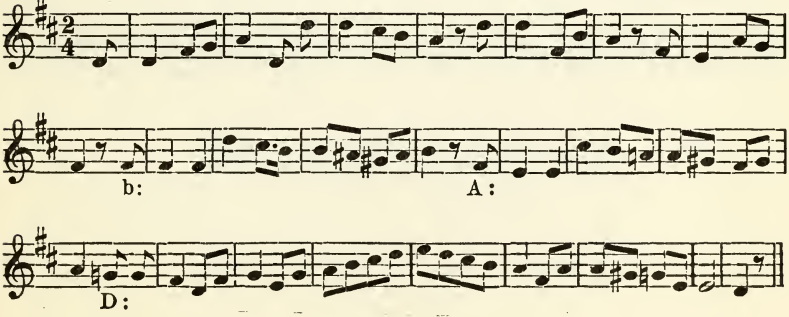
5 Scandinavian Air.



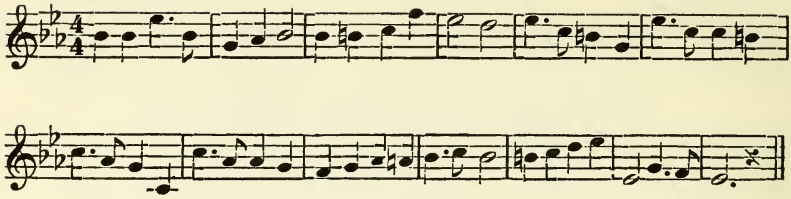
6 Mendelssohn.



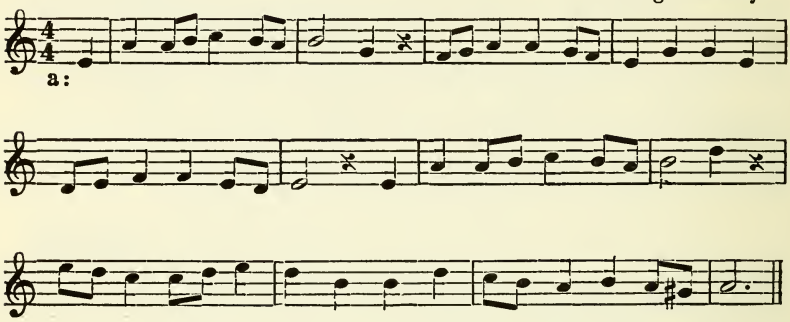
7 Folk Song.



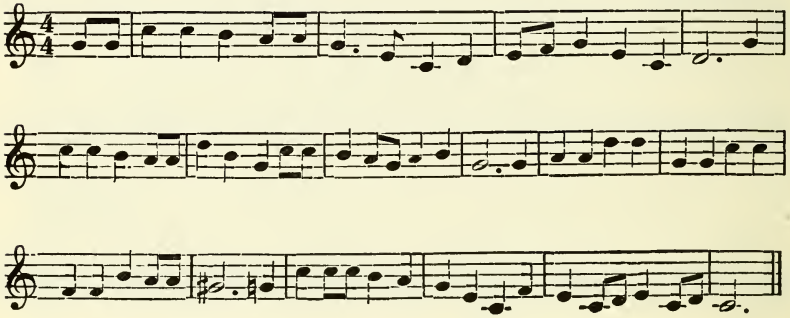
8 Mendelssohn.



9 Norwegian Melody.



9 Old English.

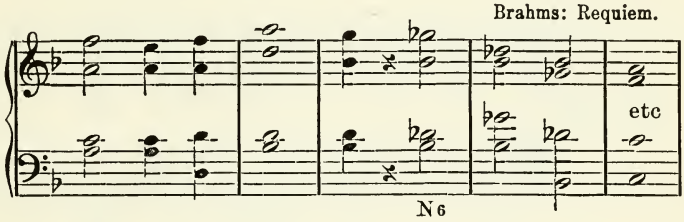


CHAPTER XVI.

The Small Second of the Scale.

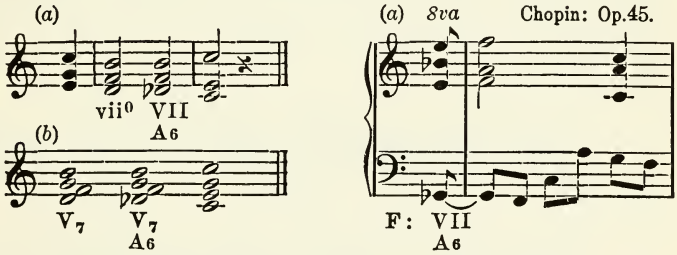
189. The small supertonic is often seen as root of a chord, especially in the first inversion, when it is known as the "Neapolitan Sixth." The 3rd is the best tone to double because it is a primary tone, and the root is chromatic. However, the root or 5th may be doubled, and in any case, the progression is free. The Neapolitan 6th may be employed in either mode of the key, but it is more frequently found in the minor keys.

Ex. 244



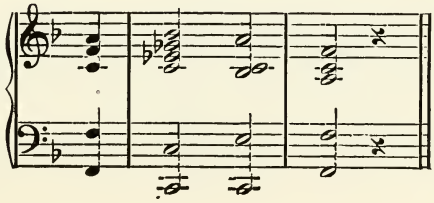
♭2 as chord-3rd makes an augmented 6th in the first inversion (*a*), and as chord 5th it may occur in an augmented 6th in the second inversion (*b*) :—

Ex. 245



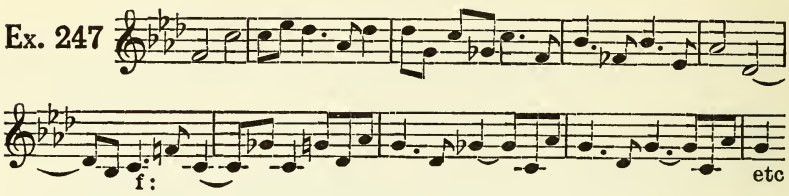
Note the effect of ♭2 and ♭7 in the dominant chord of the following:—

Ex. 246



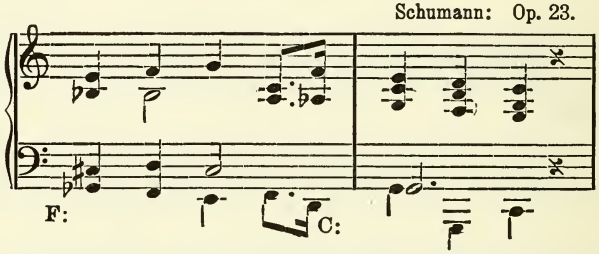
This is said to be an old melody of Brittany, used by Wagner in Tristan and Isolde: the small 2nd gives the sad, plaintive character needed for the text in that particular part of the drama:—

Ex. 247



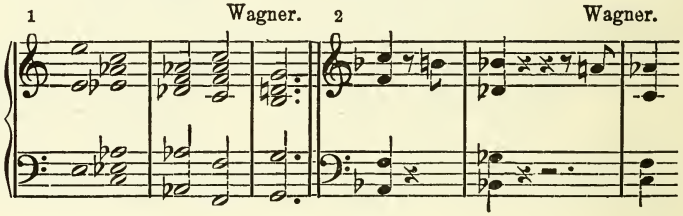
The next example shows ♭2 as a component of an augmented-6th chord and a doubly augmented 4th:—

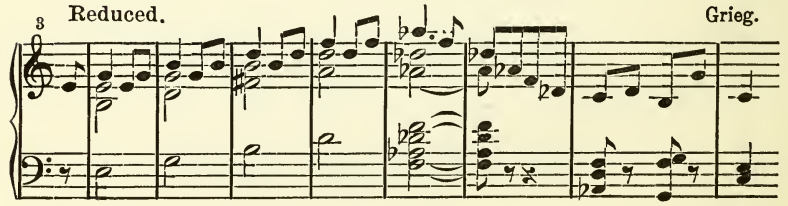
Ex. 248

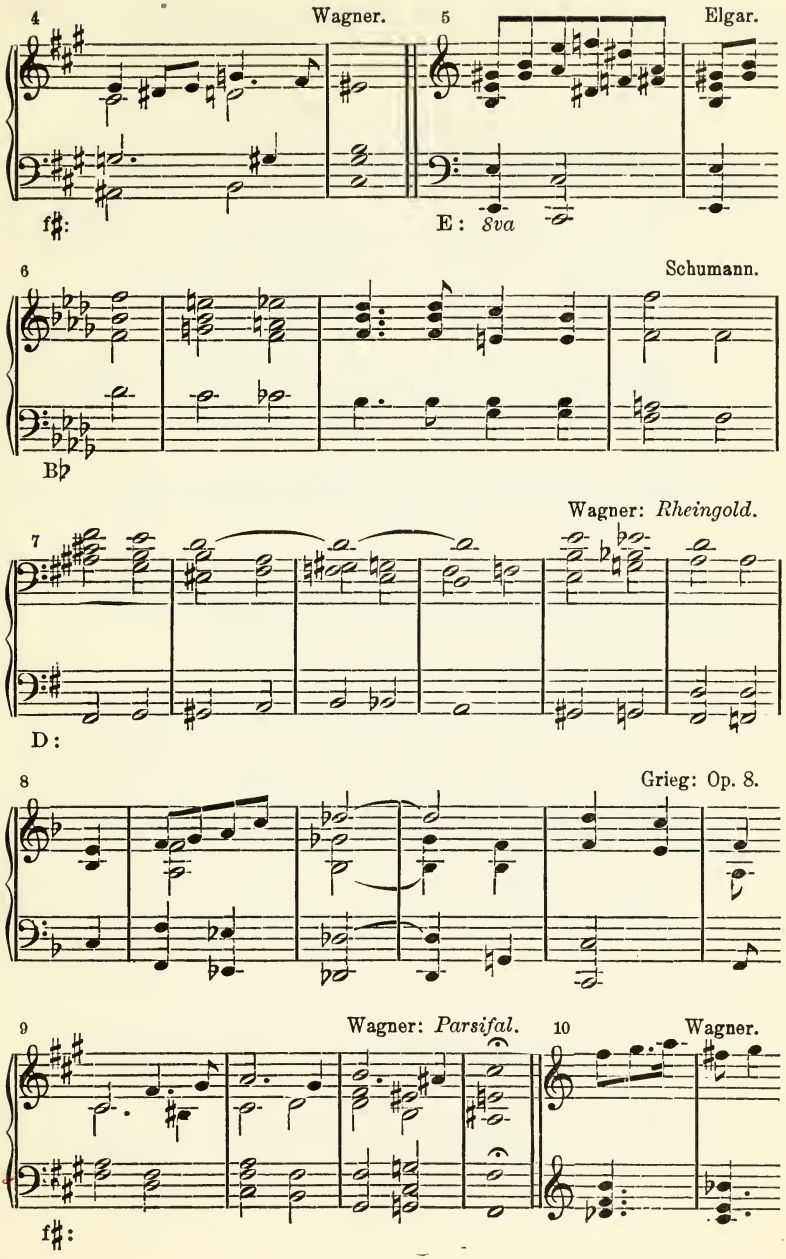


The student should be able to find the different ways in which ♭2 has been used in the following excerpts. It is interesting to note the chord relations. In the majority of cases, there are the same progressions as with the diatonic chords, although the chromatic tones destroy the original character of the harmonies:—

Ex. 249






4
Wagner.
f♯:
5
Elgar.
E: 8va
6
Schumann.
B♭
Wagner: Rheingold.
7
D:
8
Grieg: Op. 8.
9
Wagner: Parsifal.
f♯:
10
Wagner.

Example 250 shows an (hidden) augmented-6th chord in the root position, and example 251 a Neapolitan-6th over a tonic pedal:—

Gounod: *Faust.*

Ex. 250

c:

Chopin.

Ex. 251

Ex. 252 shows ♭2 as a component of an augmented-6th chord, the root of which—by enharmonic change—becomes a dominant 7th, effecting a modulation to the key of the diminished 5th.

(*b*) shows ♭2 as 3rd of an augmented-6th chord on the subtonic, taken as the supertonic chord in the key of F:—

Beethoven. (*b*) Gounod: *Faust.*

Ex. 252

D: F: ♯II A6

A modulation may be effected by taking any augmented-6th chord formed with the small supertonic as IIa6 or IVa6 of another key:—

Ex. 253

V7 F: II A6 | VII F: VI A6 | VII A♭: II A6

190. Modulations may be made by taking the Neapolitan-6th chord as another chromatic chord or as a diatonic. Ex. 254 shows the chord taken as a new tonic:—

Beethoven: Op. 45.

Ex. 254

In this example, the Neapolitan-6th is taken as the supertonic chord, the subdominant, etc.

Ex. 255

1 2

N6 N6

C♭: II A♭: II

3 4

N6 N6

V ♭VI

Note the beautiful modulation in this when the mediant chord is taken for a new tonic, and in the return to the original key (Dmi.), ♭7 is taken as 2:—

Wagner: *Parsifal.*

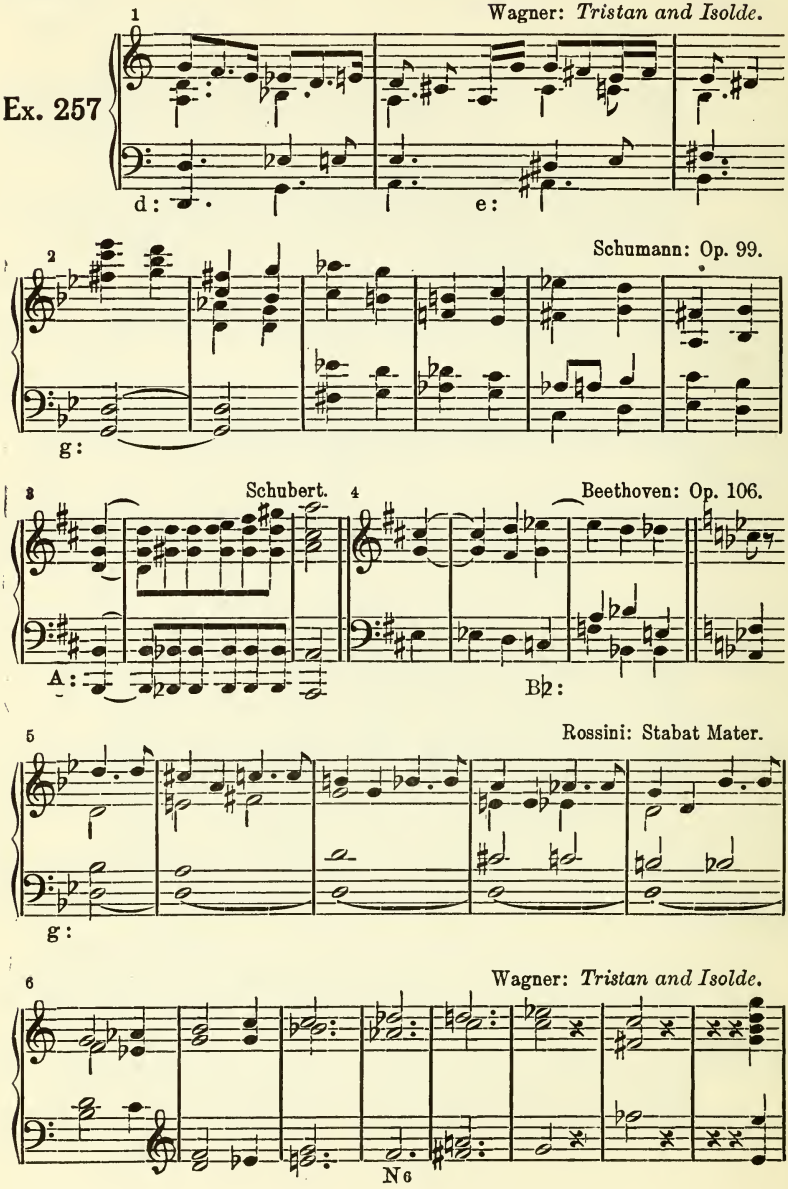
Ex. 256

d: ♭VII

d: N6

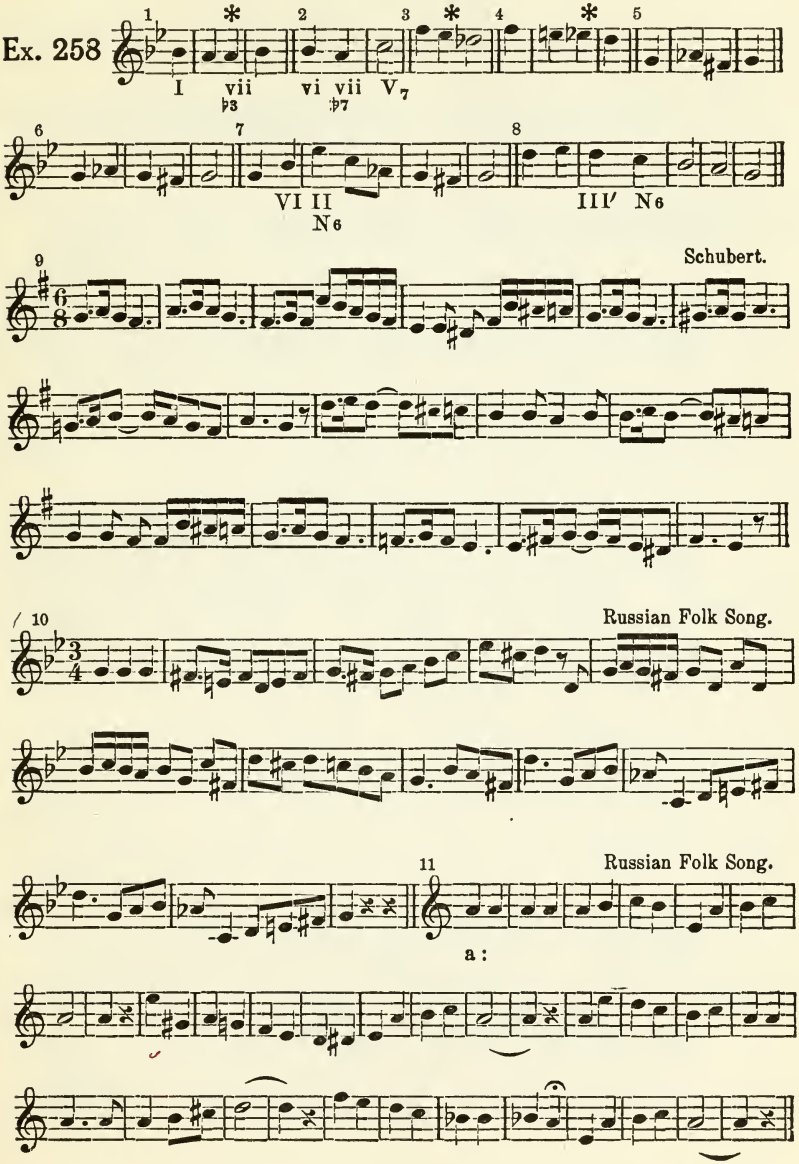
Find the use and note the effect of the small supertonic in the following:—

Ex. 257



191. Harmonize the following, employing the small scale-2nd as a component of both the Neapolitan and augmented-6th chords:—

Ex. 258

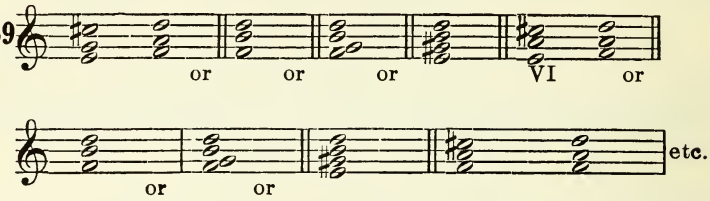


CHAPTER XVII.

The Augmented Tonic and Submediant.

192. Since the augmented tonic resolves on the supertonic, it may be employed when such a resolution is possible:—

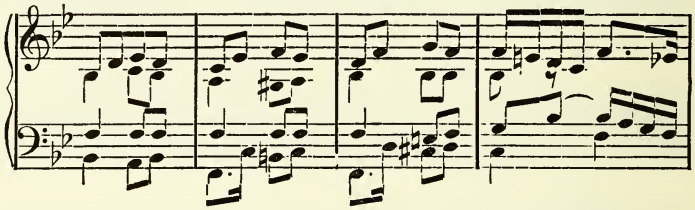
Ex. 259



♯1 and ♯6 are frequently used together to embellish the dominant harmony:—

Beethoven: Op. 18.

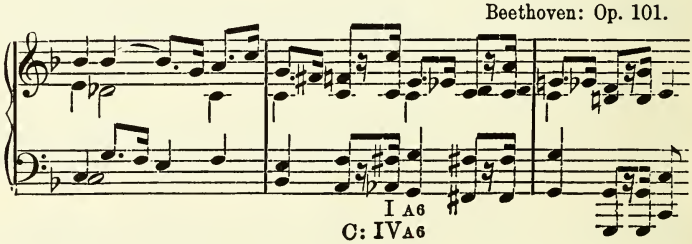
Ex. 260



163. The augmented tonic as root, transforms the first inversion of the minor chord into an augmented-6th chord. When so employed, it is generally, if not always, used as a modulating chord:—

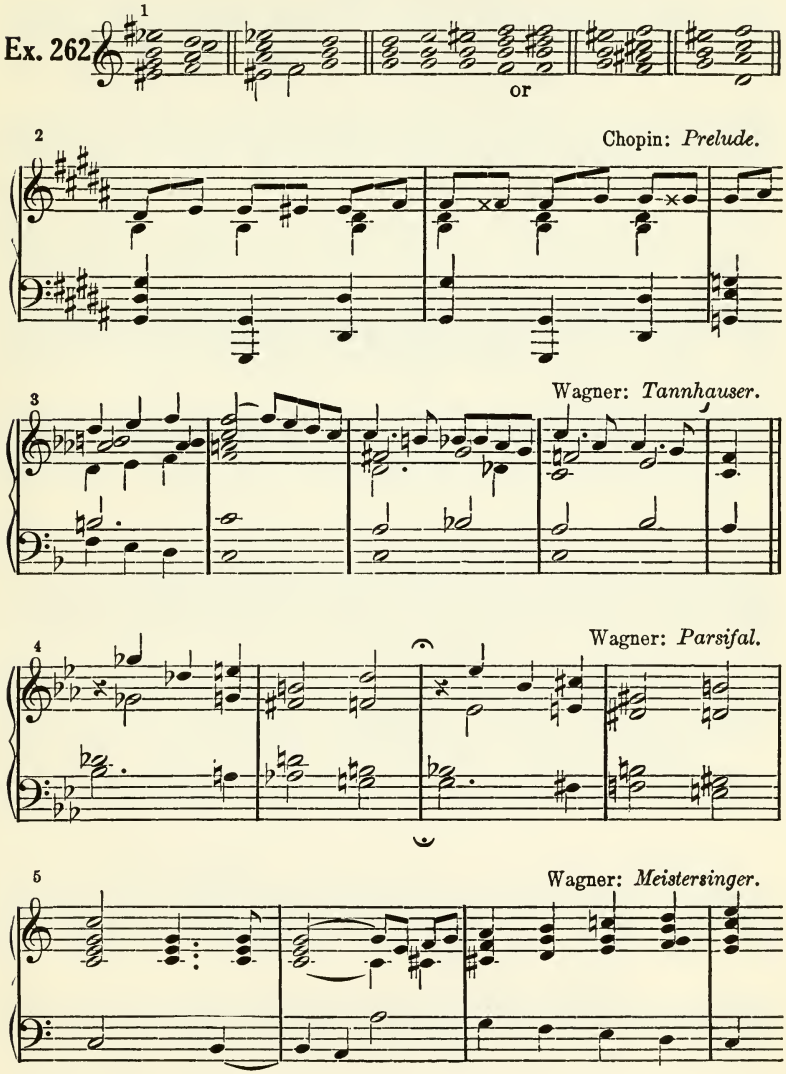
Beethoven: Op. 101.

Ex. 261

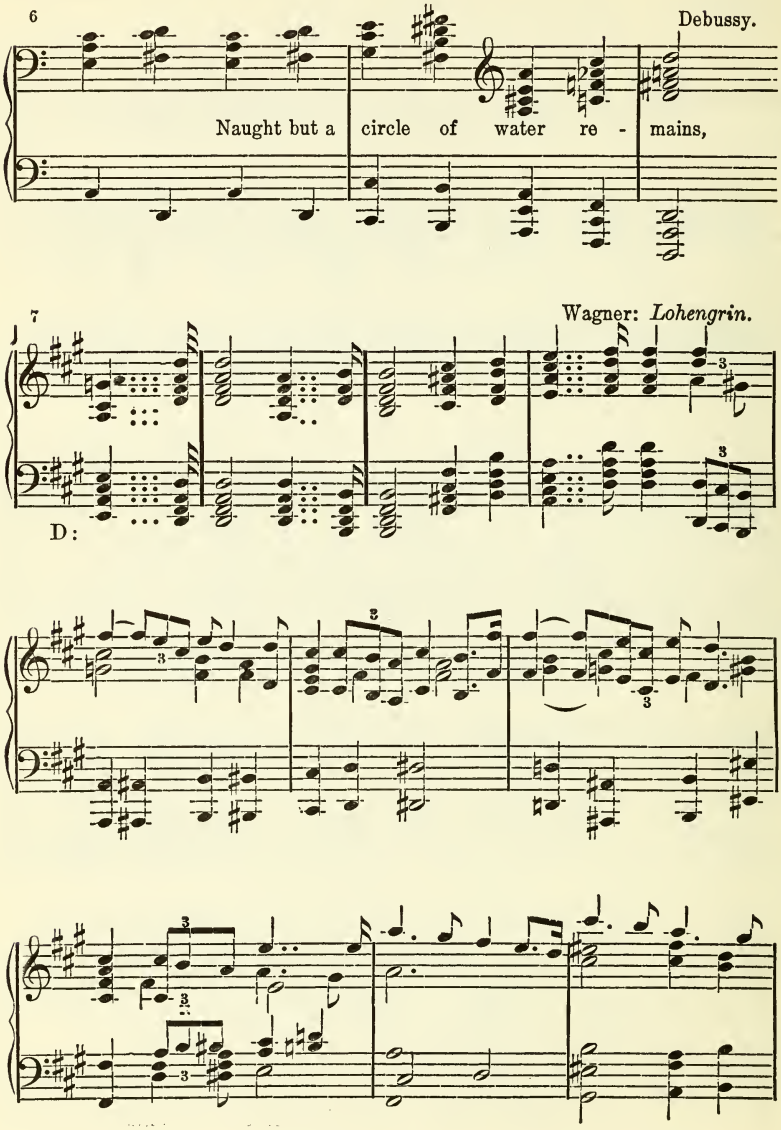


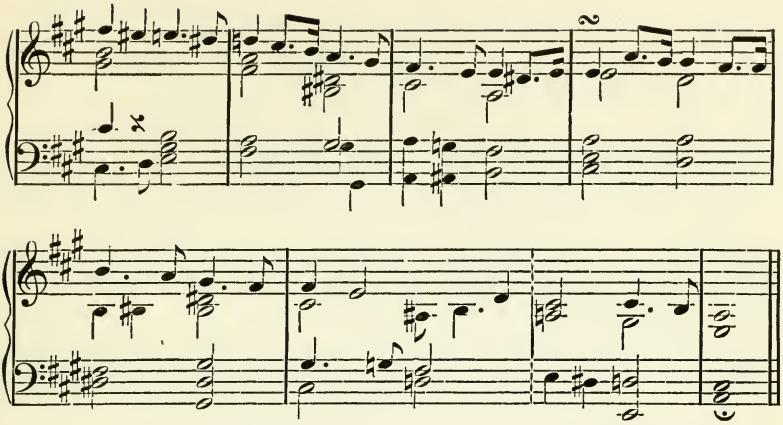
♯6 and ♭5 are rarely used as components of a chord, ♭7 and ♯4 being preferred instead. ♯6 often occurs as an embellishing tone of some kind. It could be root of an augmented-6th chord, leading to the mediant. Note its use in the following: —

Ex. 262



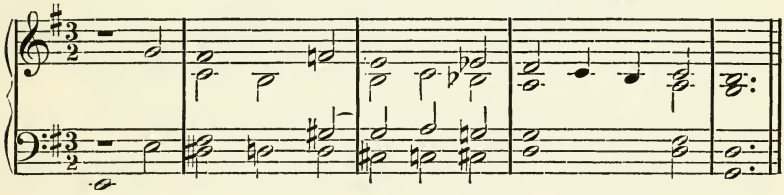
How well Debussy expresses the thought of expanding circles when Melisande drops her ring in the water:—



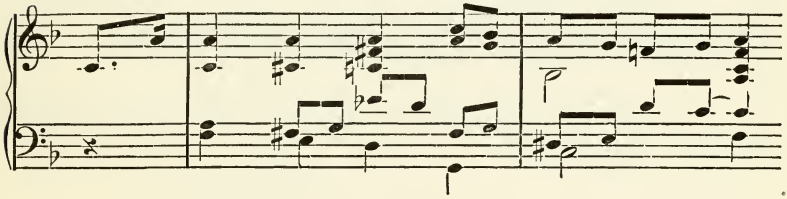


This excerpt from Bach is a good example of "borrowed" chromatic tones with the tonality remaining clear:—

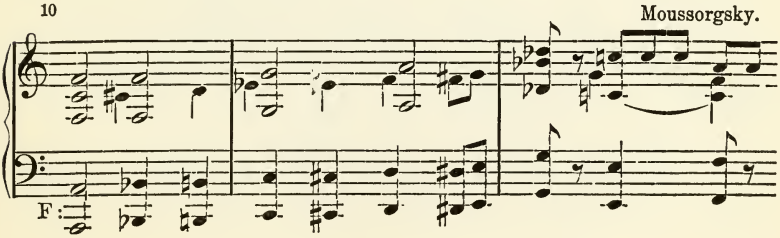
8 Bach: *Mass in B Minor.*



9 Schumann: Op. 23.



10 Moussorgsky.



11

Bach: *Johannes Passion.*

In this, the augmented-6th chord of ♯6 is taken as IV of a new key:—

Brahms: *Sonata.*

Ex. 263

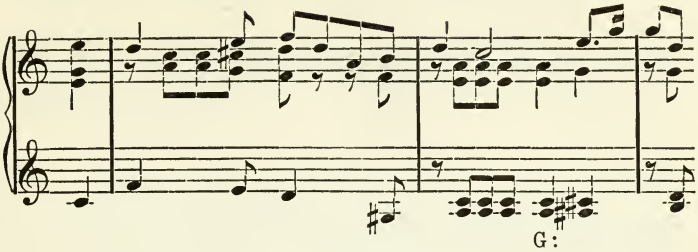
♯VI A6
IV

8

Here we have ♯6 and ♯1 taken as ♯2 and ♯4, effecting a modulation to the dominant key:—

Schumann: Op. 68.

Ex. 264

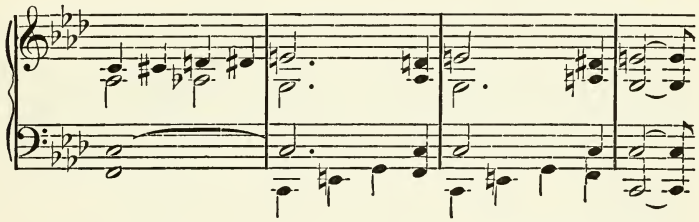


This is an unusual means of modulating, and it would be well for the student to work it out in other keys.

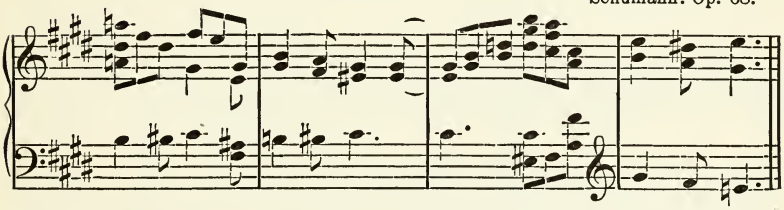
The student should study the tonality of the following excerpts and note in particular the means employed to effect the modulations:—

1 Gounod: *Faust.*

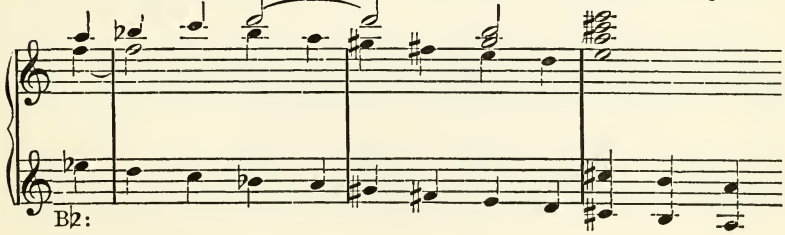
Ex. 265



2 Schumann: Op. 68.



3 Beethoven: Op. 10.



4

Chaminade.

5

Rachmaninoff: Op. 3.

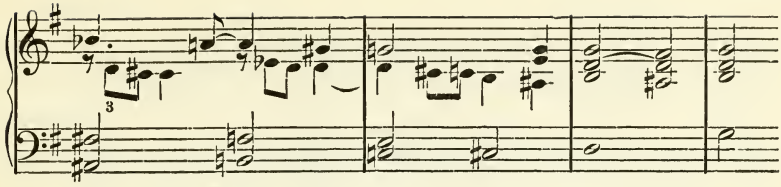
etc.

6

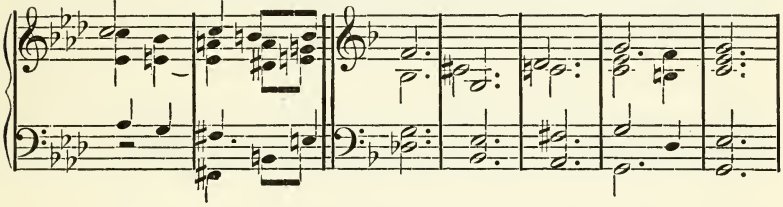
Wagner.

7

Wagner: *Tristan and Isolde.*



8 R. Strauss. 9 Wagner.

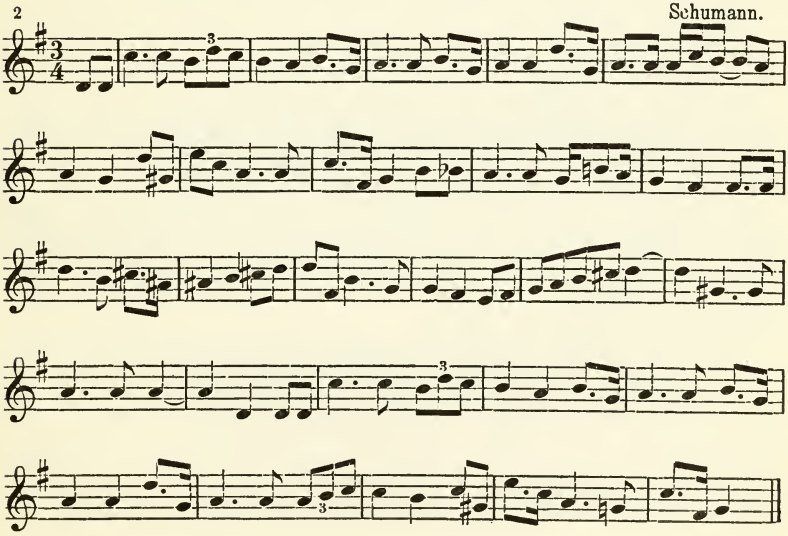


Employ ♯1, ♯6, or both in harmonizing the following melodies:—

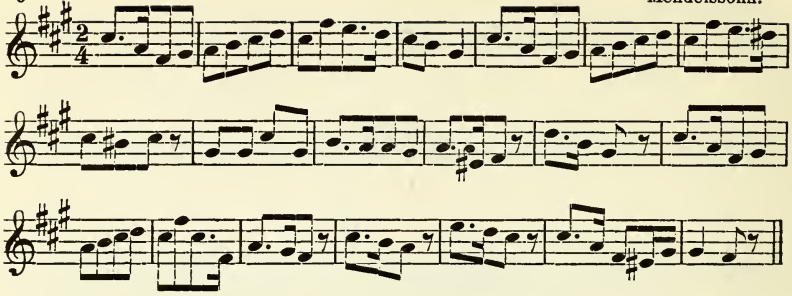
Ex. 266

1 Schumann.

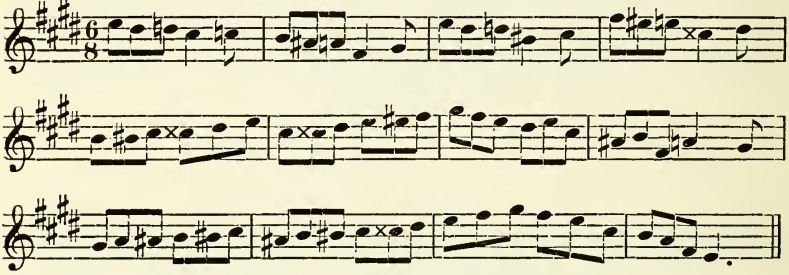
2 Schumann.



3 Mendelssohn.



4 Hiller.



CHAPTER XVIII.

The Diminished Dominant.

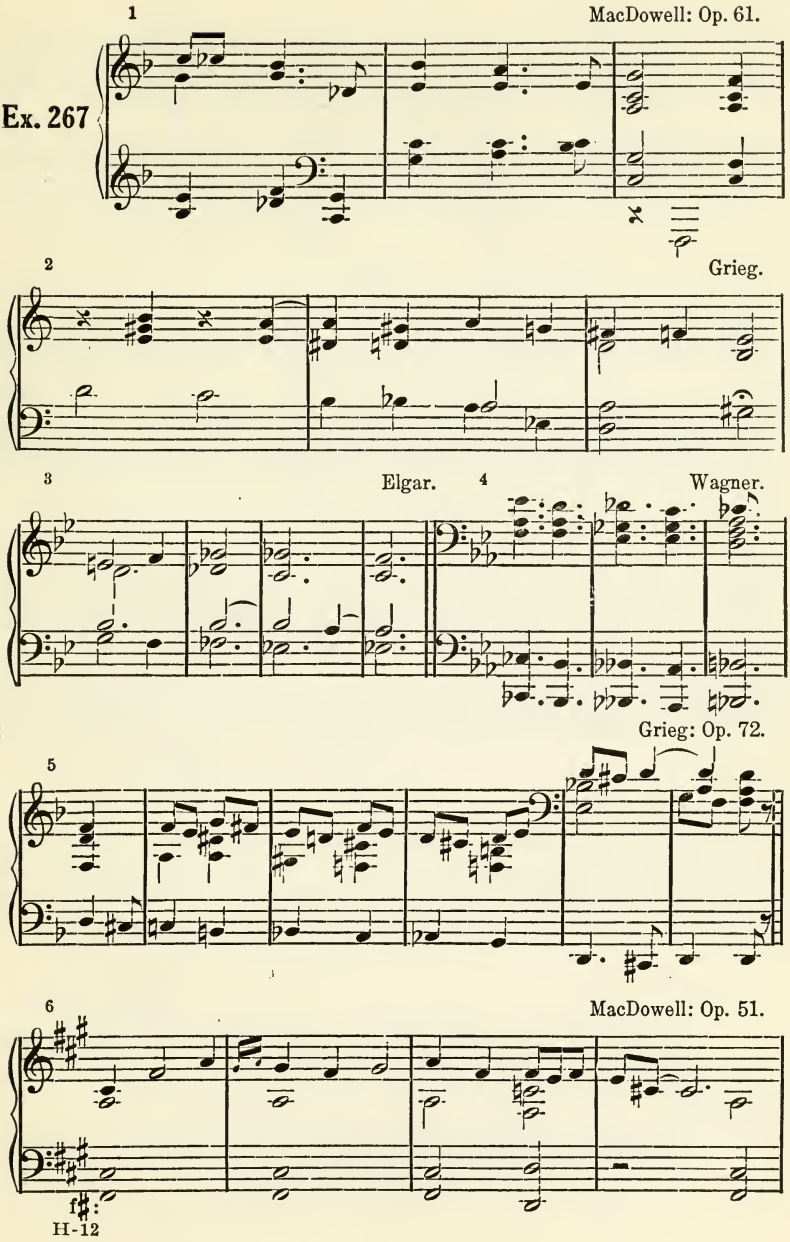
194. The diminished scale-5th is seen less often than any other chromatic. Modern writers use it more than the old composers did, because they are more accurate in the selection of symbols.

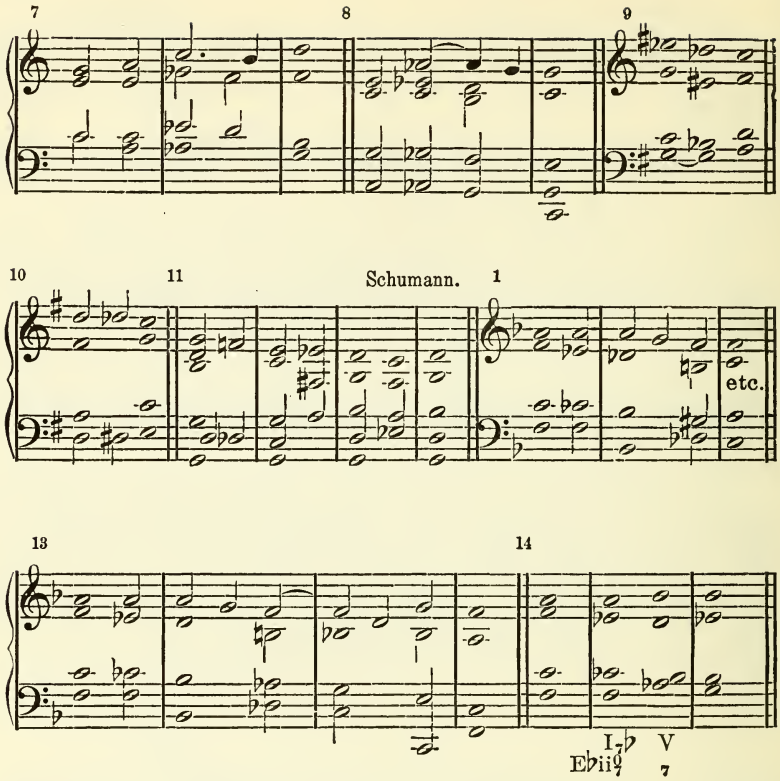
In the preceding lessons the small seventh was added to the tonic chord to create a demand for the subdominant. If a more somber character is desired, the diminished scale and chord-5th may also be employed. This effect is heightened if the resolution is on the minor mode of the subdominant chord.

From the choice excerpts, the student has probably noticed that descending small seconds, especially in the middle or lower octaves, produces the effect of pathos and gloom. Where the sharper tones are also employed, as in some of the excerpts, the effect is modified or neutralized.

The diminished scale-5th may appear as a bytone, or a harmony tone. The student can easily see its use in the following excerpts:—

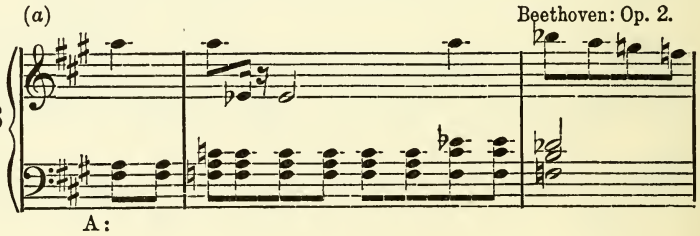
Ex. 267

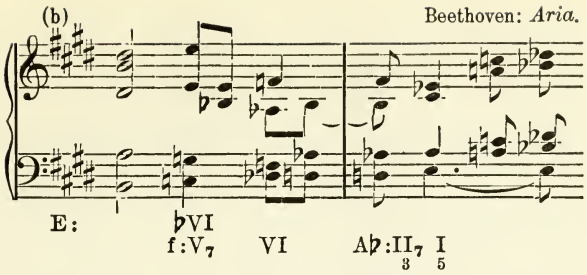

1
MacDowell: Op. 61.
2
Grieg.
3
Elgar.
4
Wagner.
Grieg: Op. 72.
5
6
MacDowell: Op. 51.
f♯:



At (a) the chromatic VI is taken as the dominant of another key with ♭5 as the diatonic 7th of the chord. At (b) ♭5 again becomes the dominant 7th, and again the chord progresses to a chromatic submediant which leads into a key enharmonic with the large 3rd above:—

Ex. 268





Facts to Remember.

A chromatic tone may occur as a bytone or as a harmony tone changing the mode of the chord.

A chromatic tone may effect a modulation, but not necessarily so.

A modulation is effected or complete when the altered chord resolves in the new key; *the chromatic tone then becomes diatonic.*

As the component of a chord, the chromatic tone usually gives the trend to the progression of the chord.

♯1 as root, 3rd or 5th creates the demand for the supertonic chord.

♯2 may be 1, 3 or 5 of a chord demanding the mediant harmony.

A chord with ♭2 as root is free in its resolution.

♭2 as 3rd usually occurs in an augmented 6th chord demanding the tonic.

♭3 changes the mode of the key.

As 1, 3 or 5 of a chord, ♯4 creates a demand for the dominant harmony. As root of an augmented 6th chord, for the tonic $(\underset{5}{\mathrm{I}})$.

A chord containing ♯5 demands the submediant harmony.

♯6 is rarely used, except as a bytone.

♭6 suggests the minor mode of the key, but does not necessarily make it so.

As root, ♭7 is free in its progression. As chord 3rd, 5th or 7th it creates a demand for the subdominant harmony.

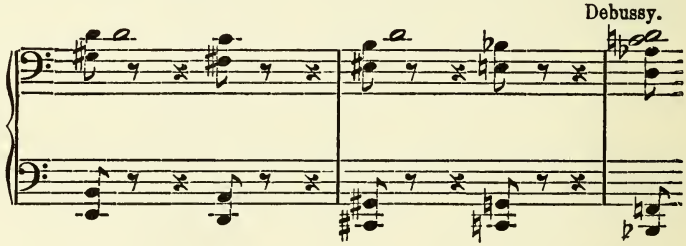
As stated before, by "demand," we mean the natural progression on the line of least resistance. The chromatic tones and chords may and sometimes do move otherwise, but the *demand* is the same, and the ear identifies them by this quality, rather than the actual progressions. Remembering the mental effect, one knows how and where to use the chords effectively.

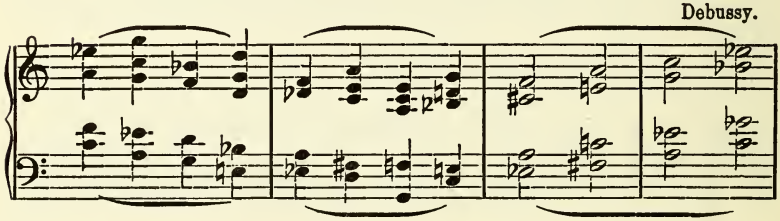
CHAPTER XIX.

Modulation by Common Tone Continued.

195. The ways of modulating by means of a common tone are almost numberless when one considers both the diatonic and chromatic tones in a key, and the fact that a given tone may be employed as 1-3-5-7 or 9 of a harmony, any one of which may be taken for the other; not only of the same chord, but 1-3-5-7-9 of other harmonies in other keys. In the first excerpt from Debussy, D is 7th, root, small 9th, large 9th and 3rd. In the second excerpt, any one of the chromatic chords could be resolved in the key of B♭.

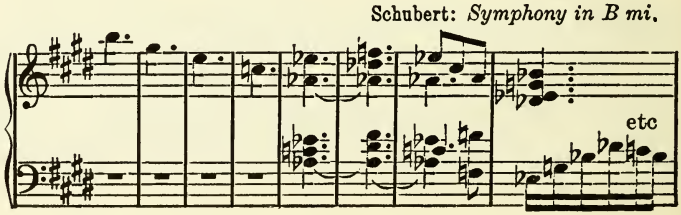
Ex. 269





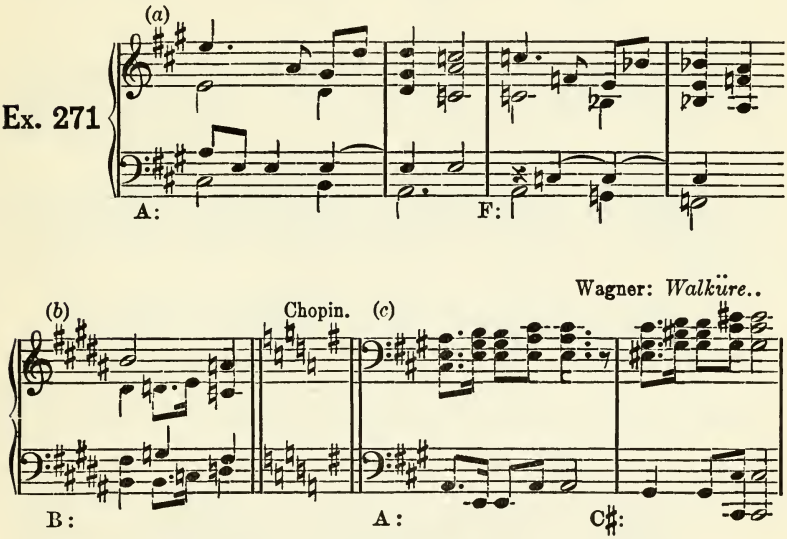
In the following example the small 6th is taken as 3rd of a new tonic:—

Ex. 270



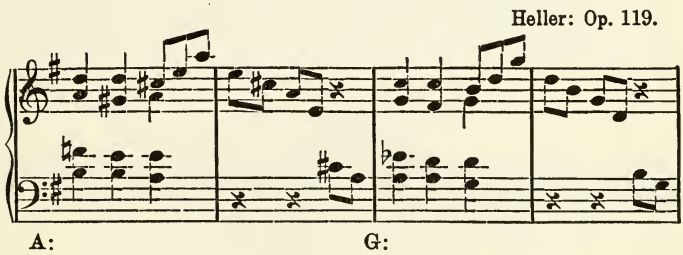
196. In the early part of the work (Ex. 72, 73, 132) transitions were made from I to another I, and I to V_7 by means of a common tone. Ex. 271 (*a*) shows the 3rd of A minor taken as 5th of the tonic of F major. (*b*) shows the root of the tonic chord taken as 3rd of another tonic, both keys being confirmed by the dominant-7th. At (*c*) the third of the tonic is taken as root of another tonic, the key being affirmed by the second inversion. This is also a common chord, the chromatic III being taken as a diatonic I:—

Ex. 271



In this example the root of the tonic harmony is taken as the root of the supertonic:—

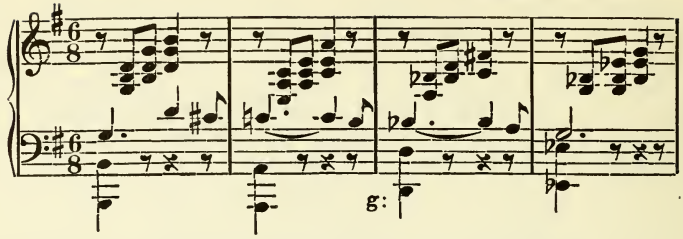
Ex. 272



The change from the major key to the parallel minor is very effective, as will be seen in the following example:—

Wagner: *Tannhauser.*

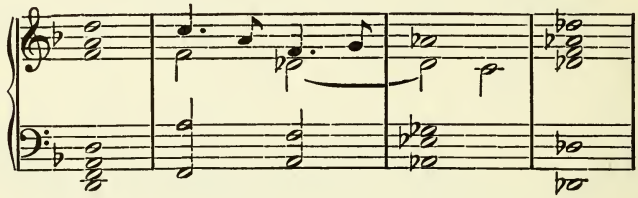
Ex. 273



The only common tone in this is D♭, which is suspended over the V_7 of the new key:—

Beethoven.

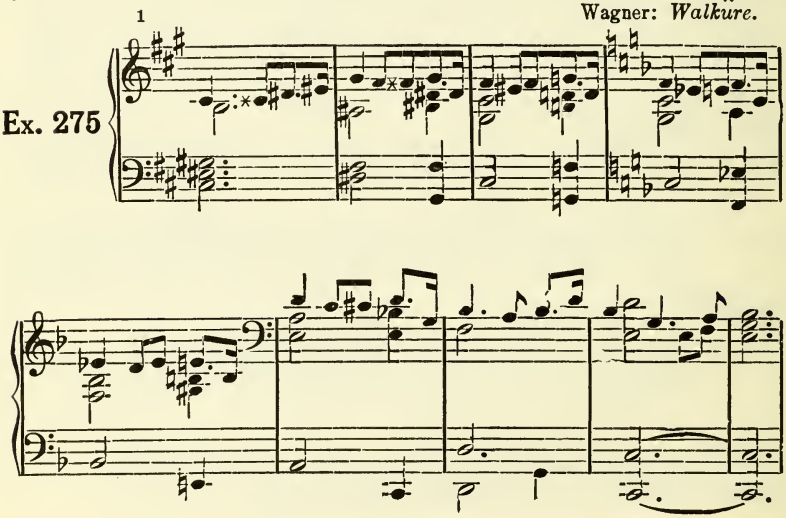
Ex. 274



Note the means by which the following modulations are effected:—

Wagner: *Walküre.*

Ex. 275



2 Wagner: *Lohengrin.*

etc.

B♭: G:

3 *Lohengrin.*

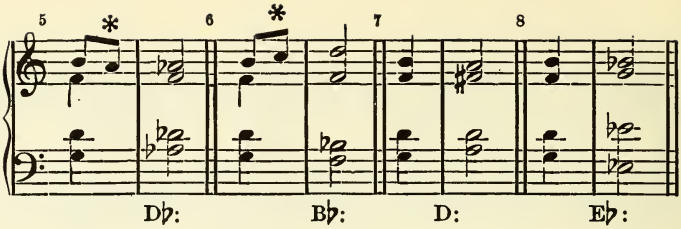
4 Beethoven.

197. Write and play a deceptive cadence by taking each tone of a dominant 7th chord as root, 3rd and 5th of a new tonic. In moving to the remote keys it is sometimes smoother and more satisfactory to employ a passing tone between the two harmony tones (*). Do this in different keys:—

Ex. 276

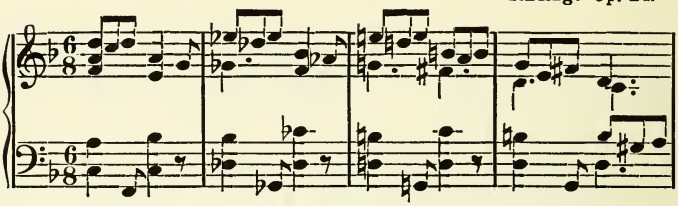
1 2 3 4

B as root. E: e: F:



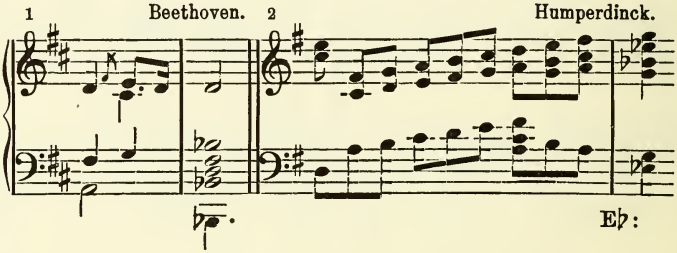
Sinding: Op. 24.

Ex. 277



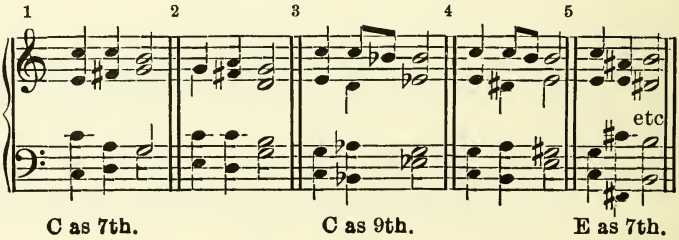
Sometimes the melody resolves as expected, but the tone is taken as a component of the tonic harmony of another key:—

Ex. 278



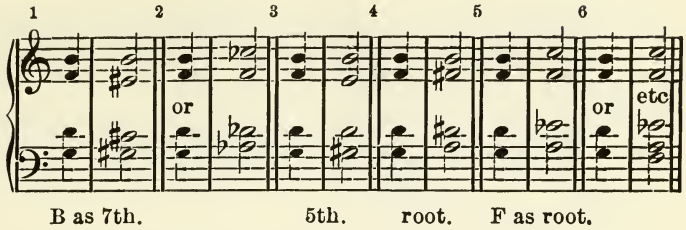
198. In examples 72 and 73 a tone of the tonic chord was taken for one of the dominant. A given tone may also be taken for a dominant 7th or 9th:—

Ex. 279

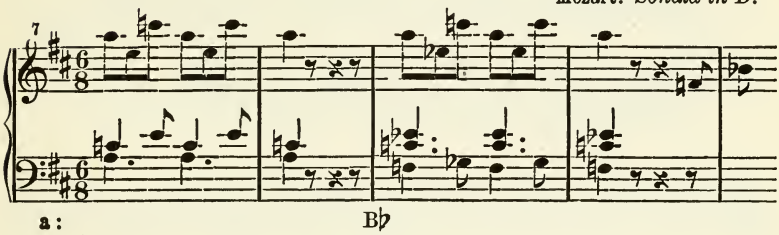


199. Write and play deceptive cadences by taking a tone common to two different dominant 7th harmonies:—

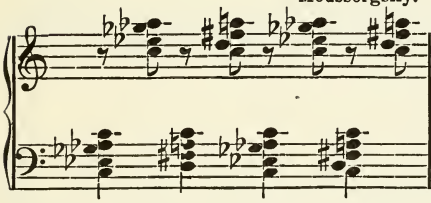
Ex. 280



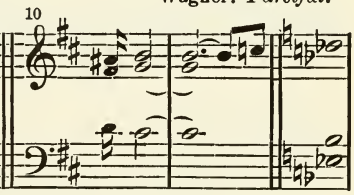
Mozart: *Sonata in D.*



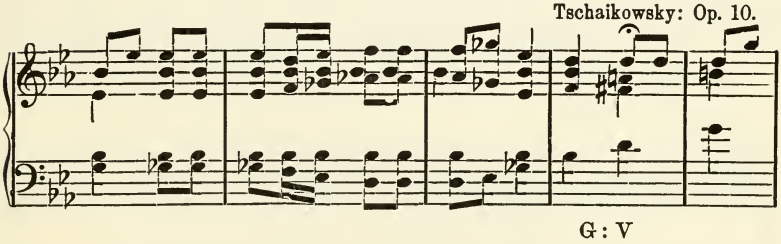
Moussorgsky.



Wagner: *Parsifal.*



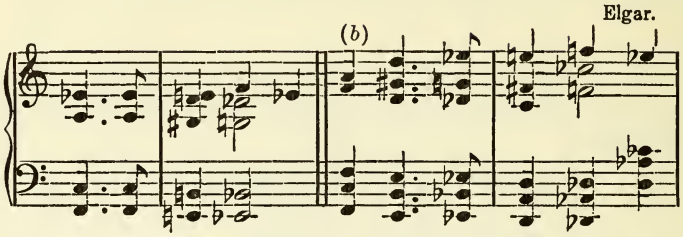
Tschaikowsky: Op. 10.



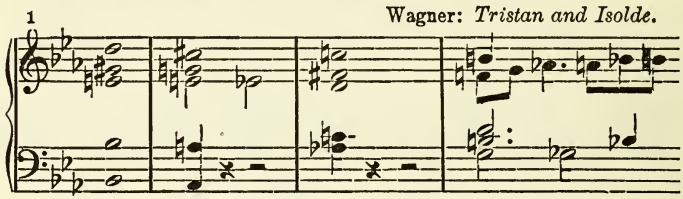
200. Note the successive dominant 7ths with no common tone. At (*b*) the upper voice (beginning with D) is 4-5-6-7 of the scale in

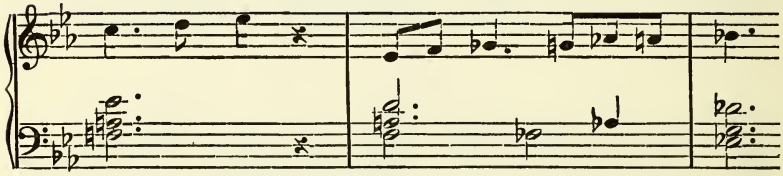
the suggested keys. These are good examples of the twelve-tone scale:—

Ex. 281



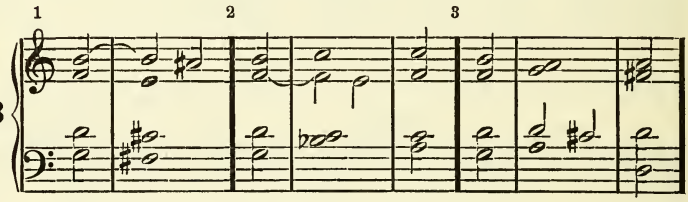
Ex. 282

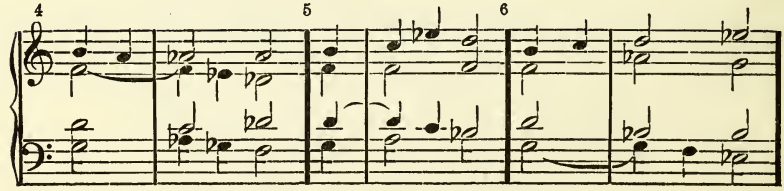




The various tones of V_7 may be suspended over the 3rd and 5th of another V_7:—

Ex. 283





201. Write and play successive dominant-7ths and dominant-9ths;—

Ex. 284

1 2 3 5

B as root, 5th, 7th, 9th, ♭9th.

Wagner: *Tristan and Isolde.*

Ex. 285

1

Wagner.

2

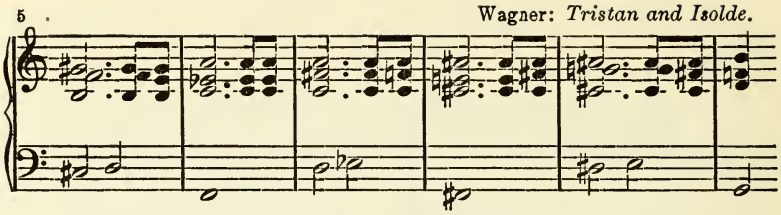
D♭ ii$_9$

Wagner: *Parsifal.*

3

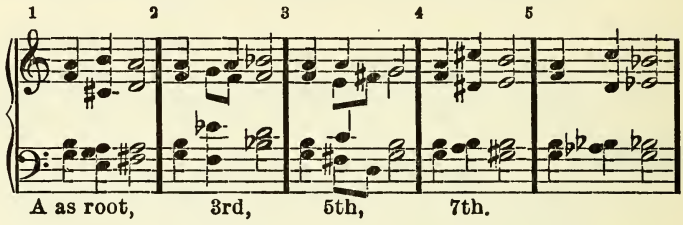
Wagner: *Walküre.*

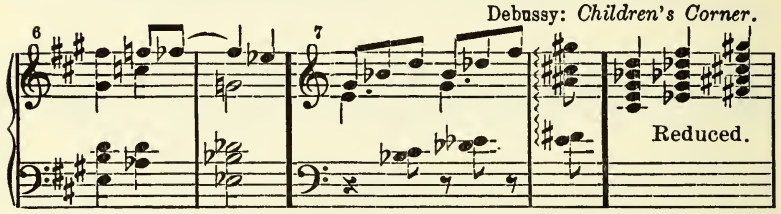
4

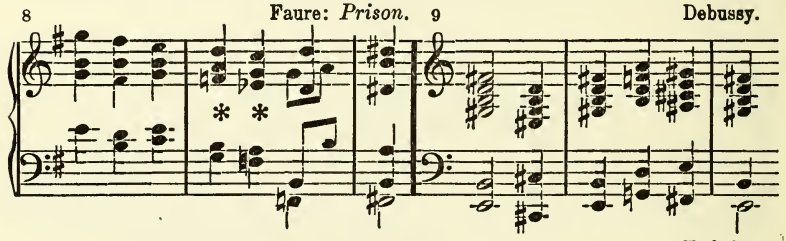


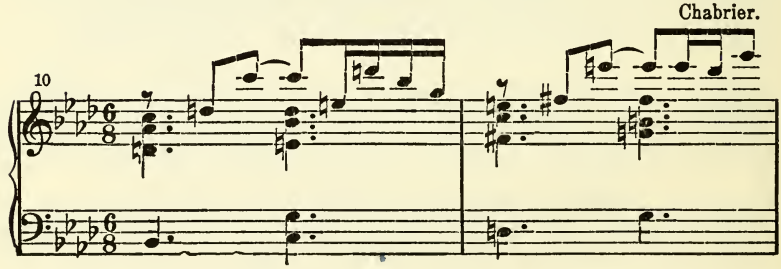
202. Dominant-9th to dominant-9th is very interesting:—

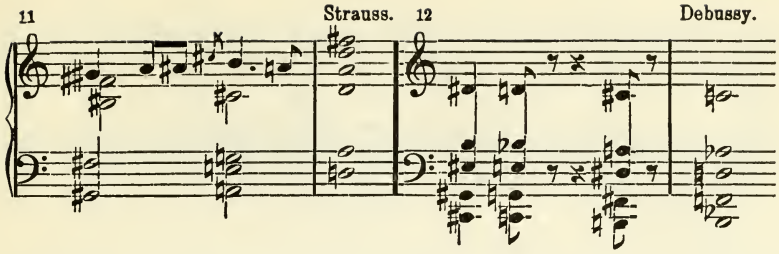
Ex. 286





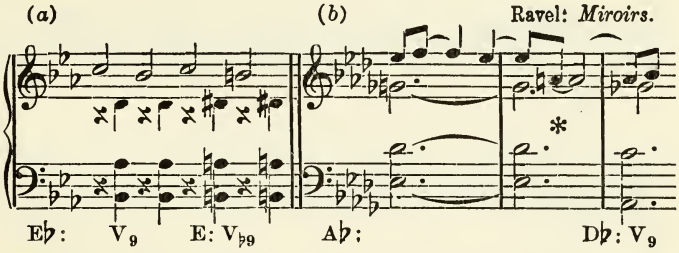






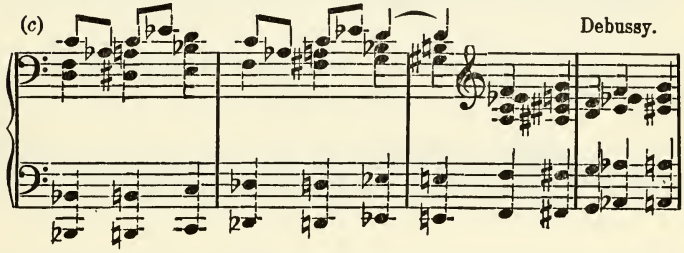
203. At (*a*) of the next example, a modulation is effected by taking a large 9th for a small one. At (*b*) an appogiatura becomes an augmented octave, resolving on the dominant 9th:—

Ex. 287



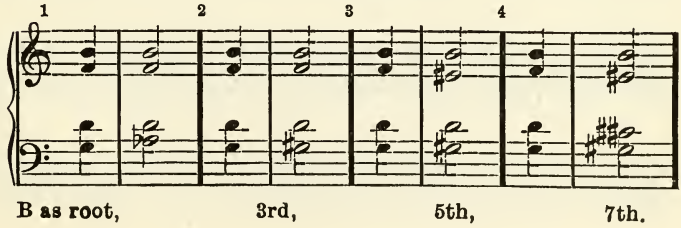
204. Note the large and small 9ths and 7ths in this example:—

Ex. 288



205. Modulations are also effected by the common tone of V_7 to vii^0, vii^0, to vii^0, vii^0 to V_7, vii^0 to V_9:—

Ex. 289



5 6 7 8 9 10 11

vii$^{\circ}_{70}$ vii$^{\circ}_{70}$ vii$^{\circ}_{70}$ V$_7$

12 13 14 15 16 17 18

vii$^{\circ}_{70}$ V$_9$ V$_{\flat 9}$ V$_{\flat 9}$

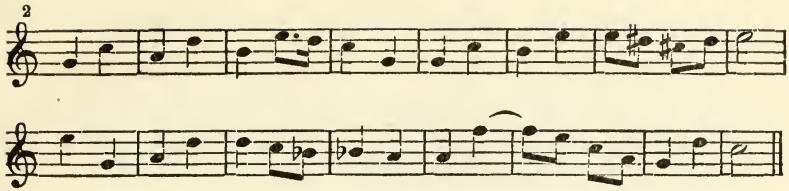
19 Moussorgsky.

206. Harmonize the following, making modulations in each:—

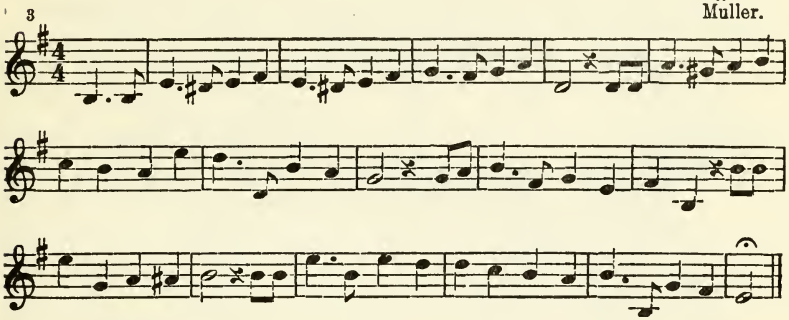
1 Old French Song.

Ex. 290

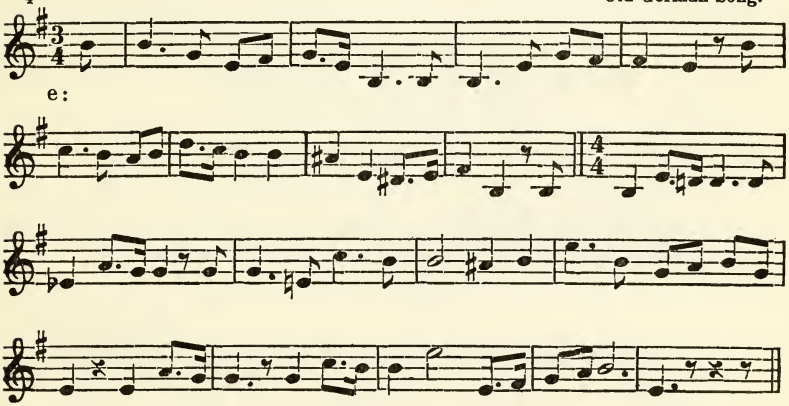
2



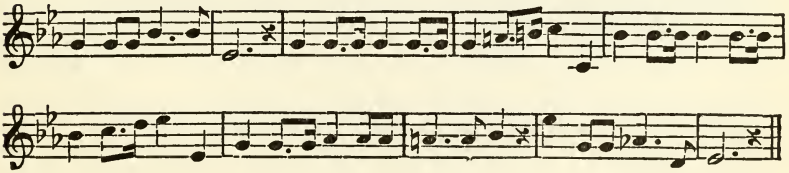
3 Müller.



4 Old German Song.



5 Himmel.



207. Modulations through enharmonic changes are always interesting.

Note especially the relationship of keys in the following excerpts: At (*a*) the small 3rd of the tonic harmony is taken enharmonically for the large 3rd of a dominant chord. At (*b*) the root of the tonic chord is enharmonically taken as the small added 6th of another tonic, a diminished 4th above the original key:—

Ex. 291

Rachmaninoff.

(*a*) (*b*)

c: E: V_7

By enharmonic changes, a dominant-9th chord may appear in four different keys (*b*):

Ex. 292

C: V_9th A: F♯: d♯:

The next example shows the root of the augmented-6th chord enharmonically taken as a dominant-7th:—

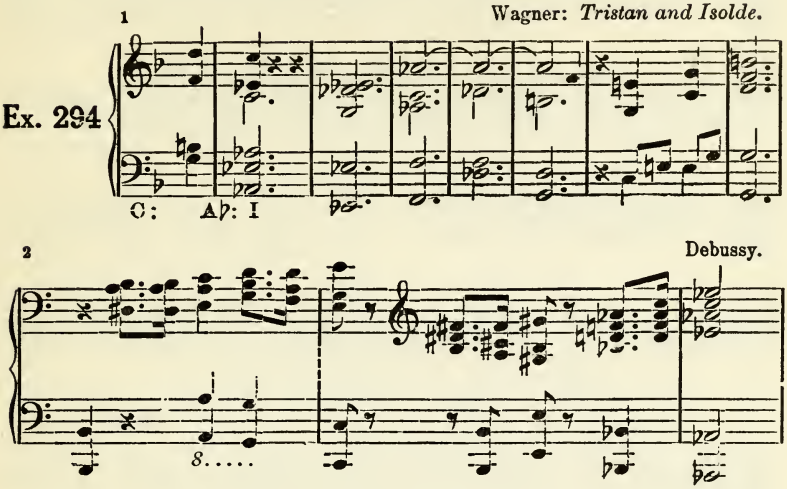
Ex. 293

Dvorak: *Requiem.*

This excerpt shows one of Wagner's changes to the large 3rd below and back again. Debussy makes an abrupt change to a large 3rd

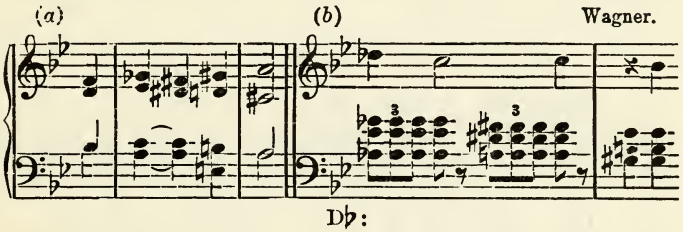
above the tonic (key of C), and by enharmonic change to a large 3rd below C:—

Ex. 294



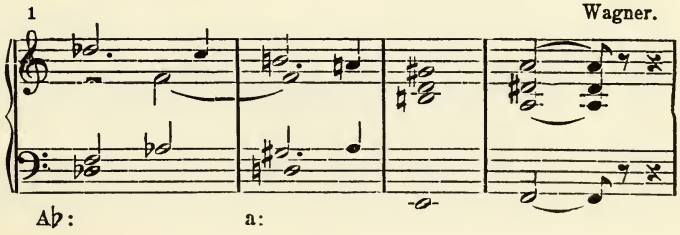
In this example, at (*a*) we see one chromatic chord taken for another, and by enharmonic change from a flat to a sharp key. At (*b*) the two tonics are an augmented-2nd distant:—

Ex. 295

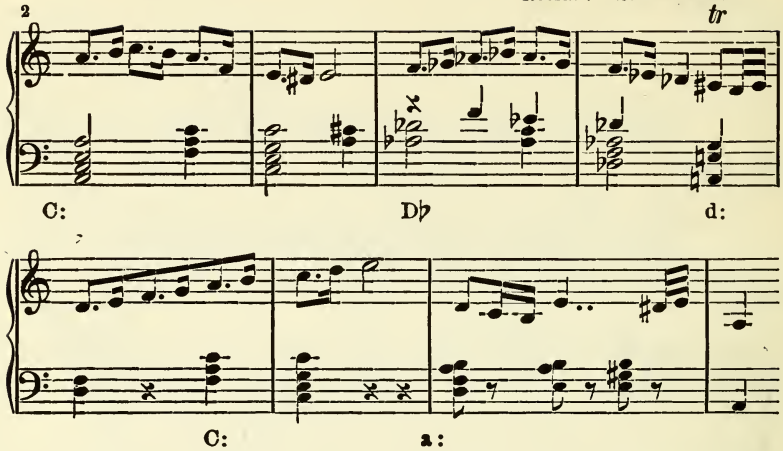


Notice how the different composers have effected modulations to one degree higher or lower:—

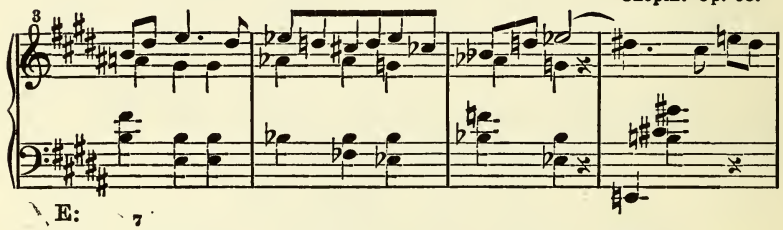
Ex. 296



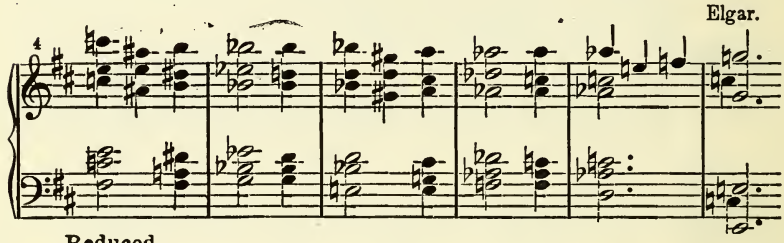
Rossini: "*Stabat Mater.*"



Chopin: Op. 63.

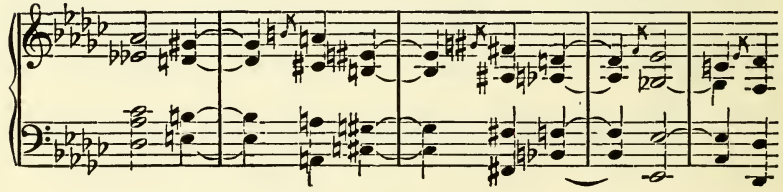


Elgar.



Reduced.

Schumann: *Whims.*



This example (*a*) is very unusual. The augmented-4th of the scale resolves on a tone enharmonically taken as the third of a new tonic, and in the new measure, the 3rd is enharmonically taken as a new tonic;—

Ex. 297

(*a*) Rachmaninoff.

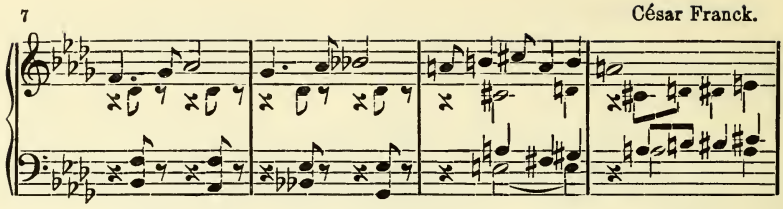
E♭:

2 Liszt. 3 Chopin.

B: E♭:

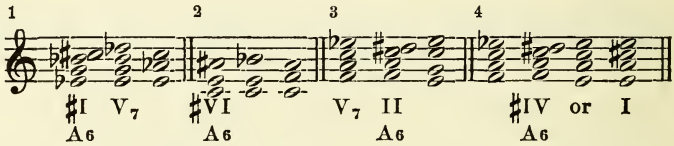
5 Ries: Op. 31.

6 Chopin: *Polonaise C♯ minor.*



208. The enharmonic change of the augmented-6th chord to a dominant-7th, and *vice versa*, has been given before. Any one of them may be taken for another and effect a modulation:—

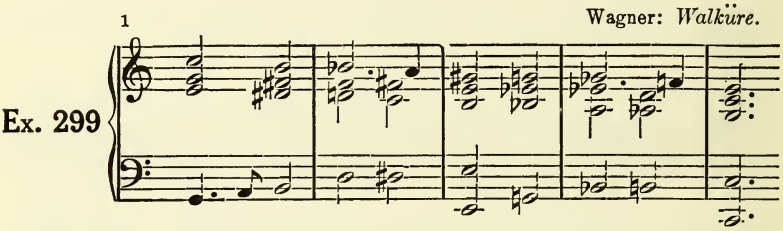
Ex. 298

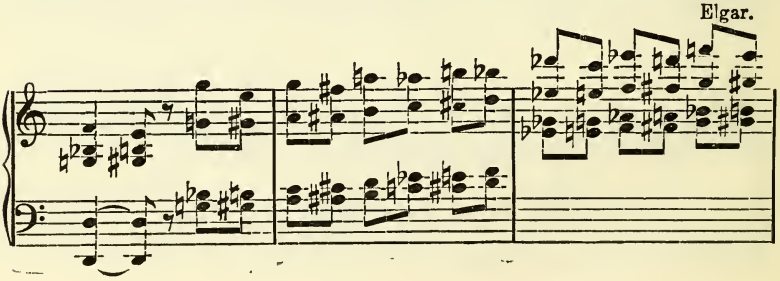


209. Harmonize the chromatic scale, both ascending and descending, employing ♯4 in the latter.

In the following excerpts a chromatic passage is seen in the upper voice of one, and in the lower voice of the other;—

Ex. 299

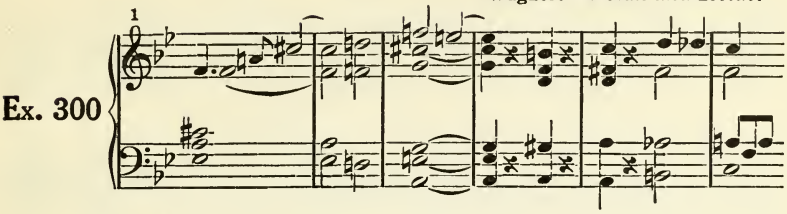




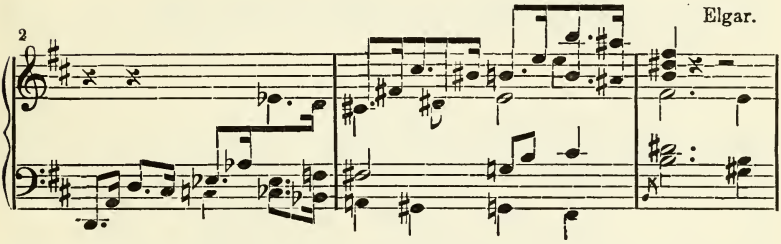
210. The following excerpts show some unusual progressions and modulations:—

Ex. 300

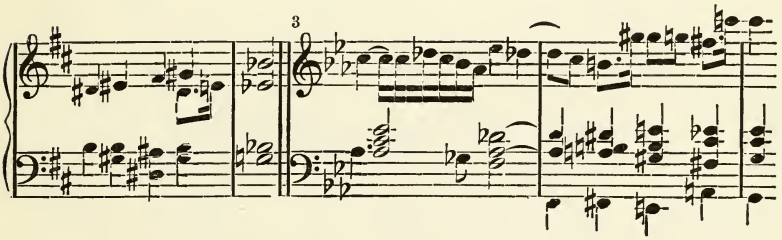
Wagner: *Tristan and Isolde.*



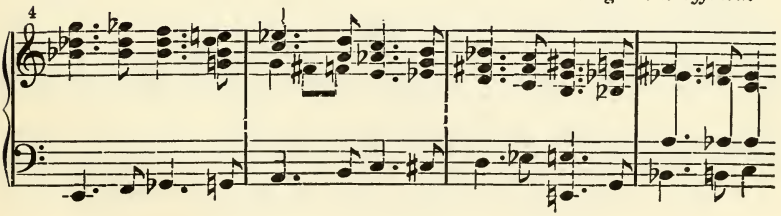
Elgar.



Strauss.

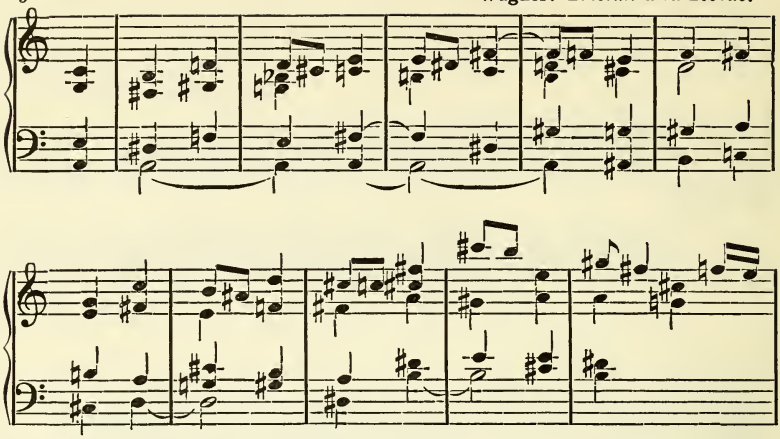


Wagner: *Siegfried.*



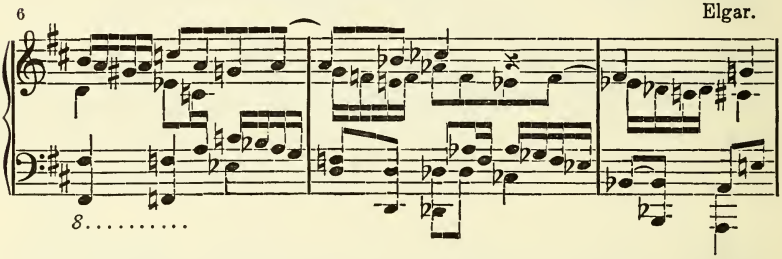
5

Wagner: *Tristan and Isolde.*



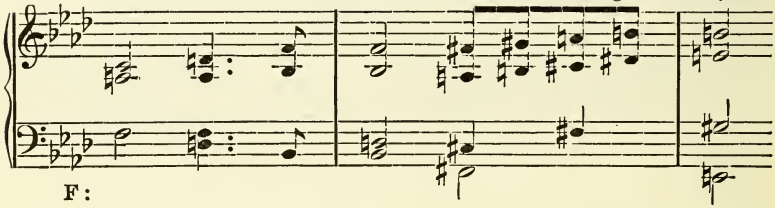
6

Elgar.



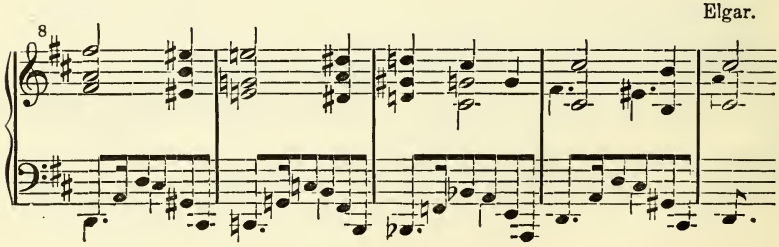
7

Wagner: *Parsifal.*



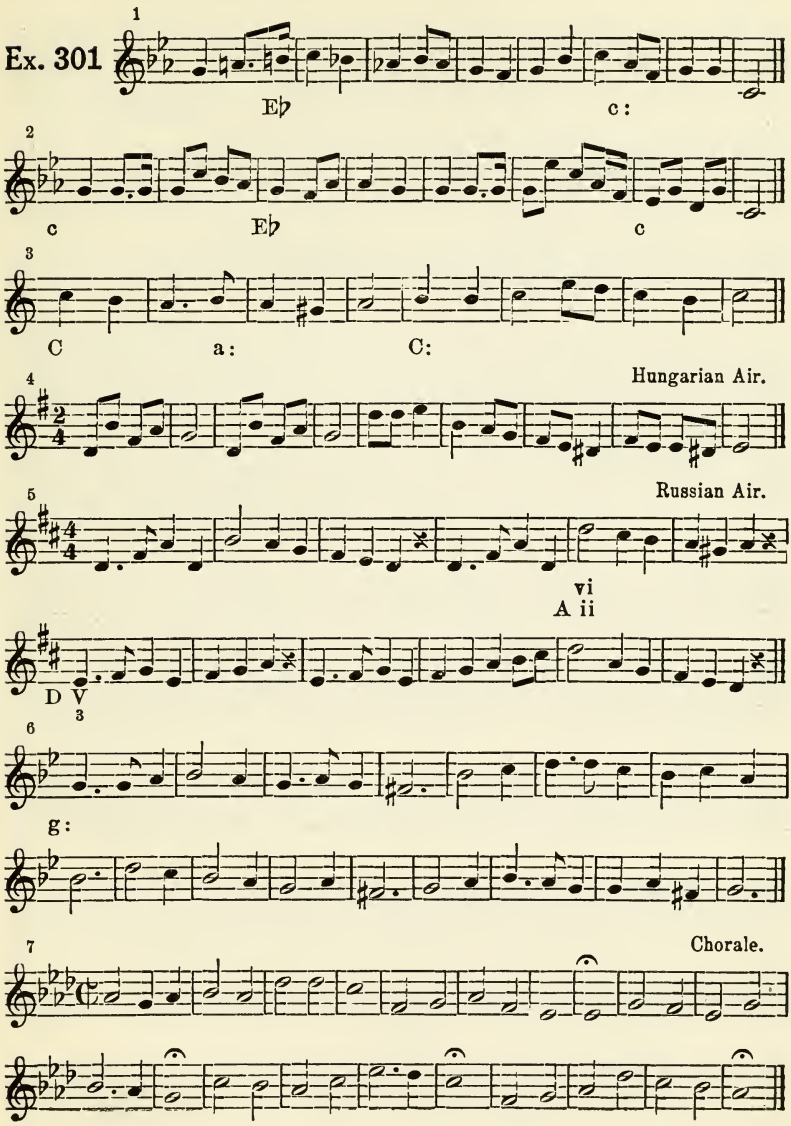
8

Elgar.

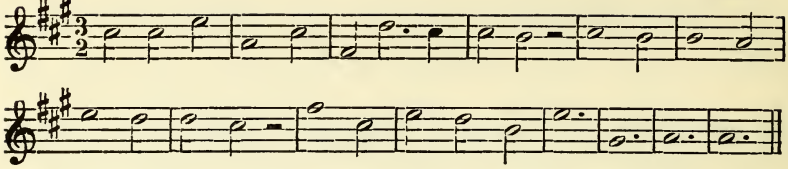


Supplementary Material for Modulation.

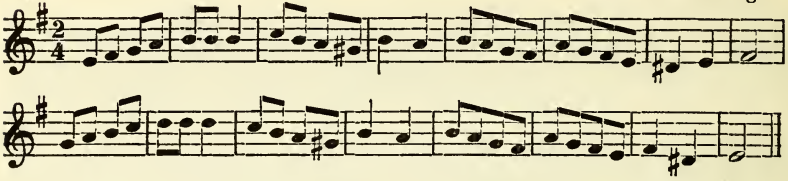
Ex. 301



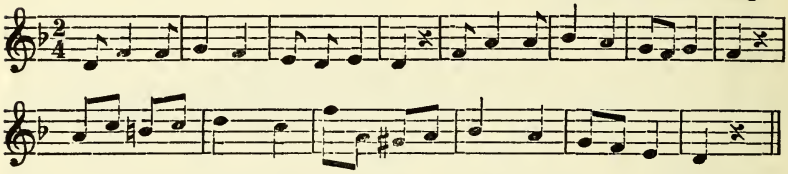
8 Chant.



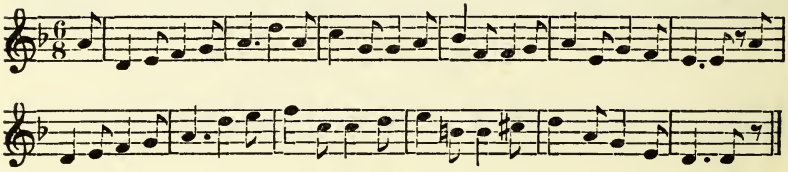
9 Russian Folk Song.



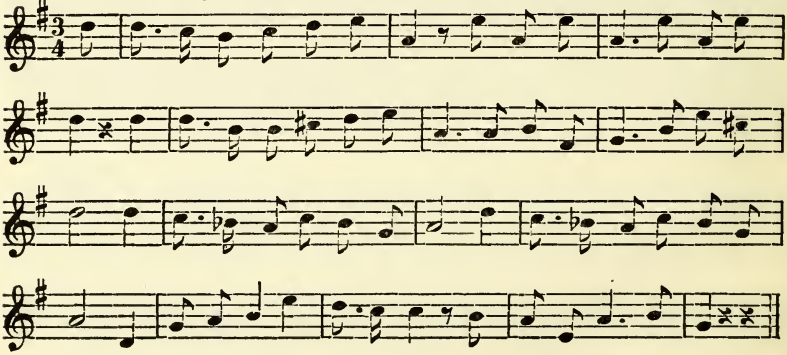
10 Hungarian Folk Song.



11 Welsh Air.

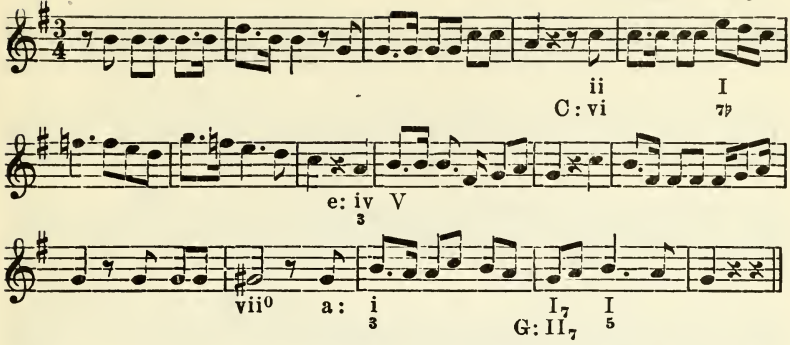


12 Reinecke.



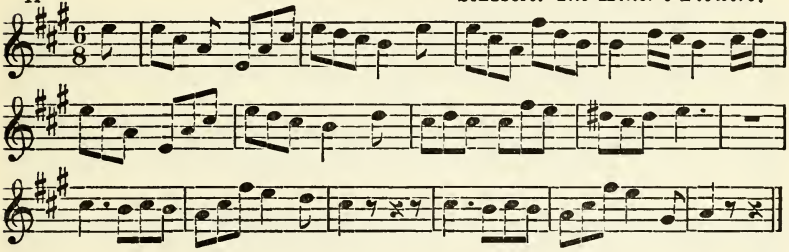
13

Schumann: *Song.*



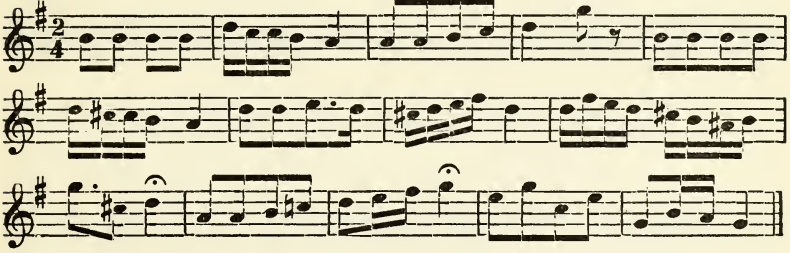
14

Schubert: *The Miller's Flowers.*

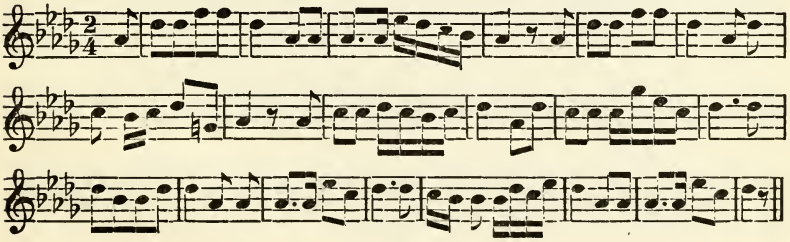


15

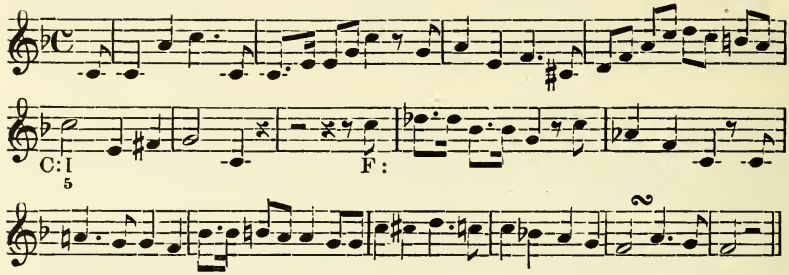
Schubert: *Hedge Roses.*



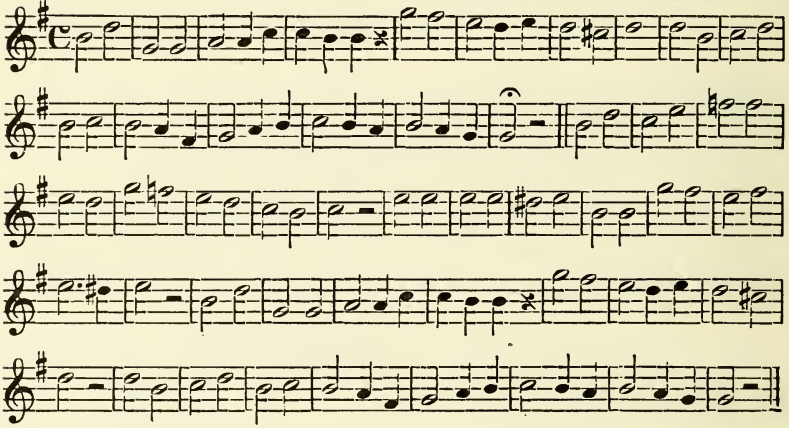
Schubert: *The Trout.*



17 Brahms: *In Summer Fields.*



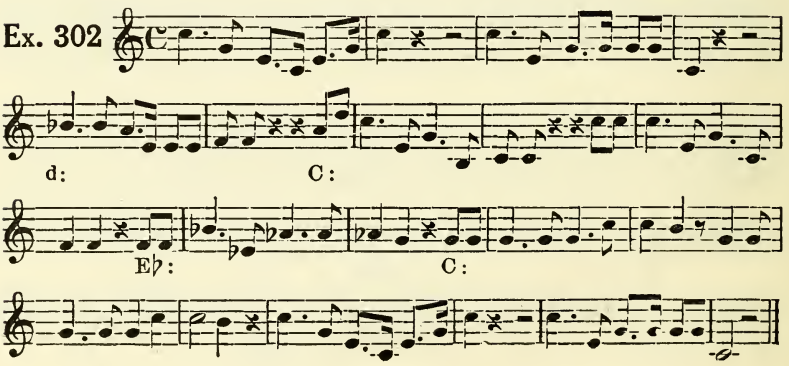
18 Gluck: *Hymn from Iphigenia.*



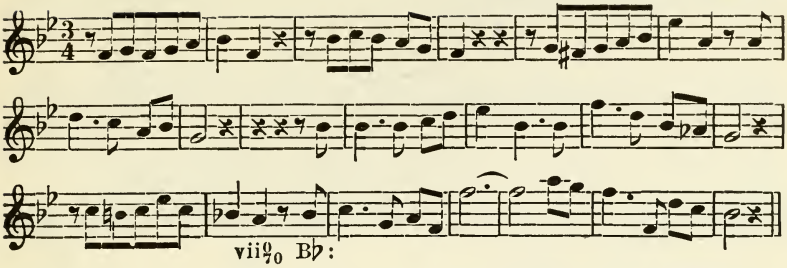
MODULATIONS BY COMMON TONE.

1 Schumann: *Talismane.*

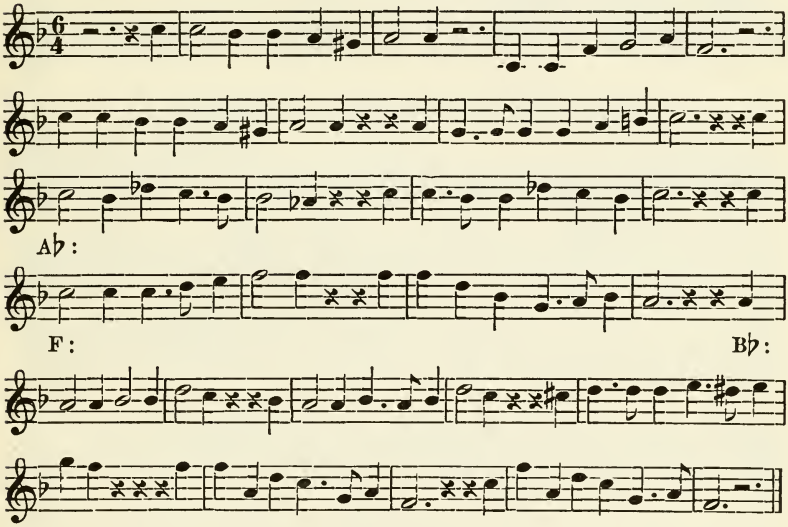
Ex. 302



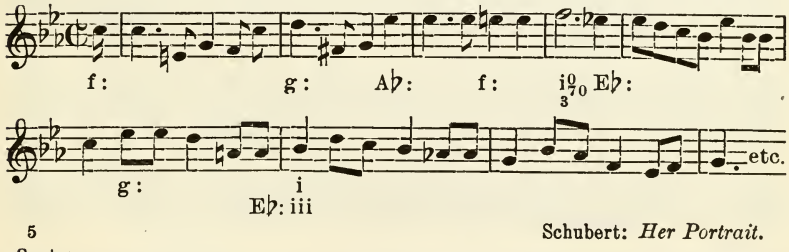
2 Schumann: *Ich wand're nicht.*



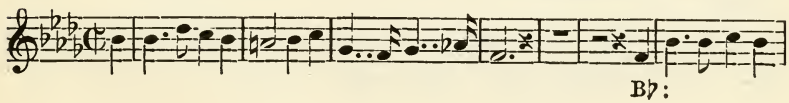
3 Schumann: *Die Lotosblume.*

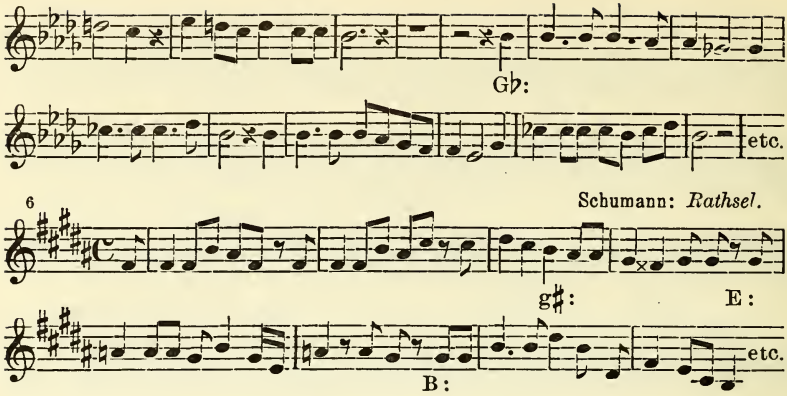


4 Schumann.

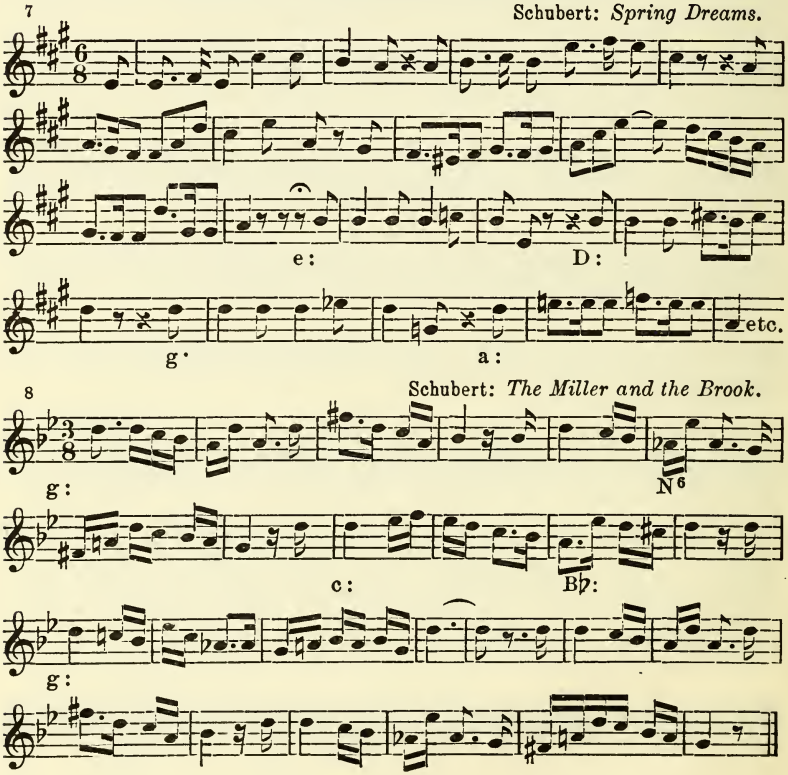


5 Schubert: *Her Portrait.*



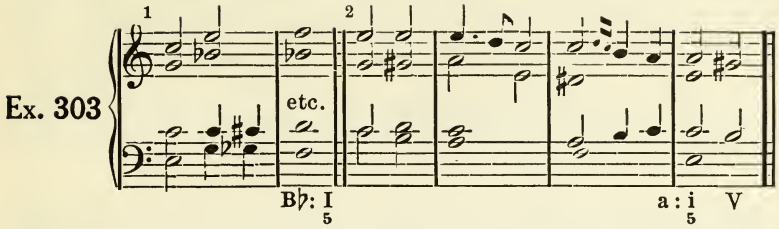


Including the Neapolitan Sixth.

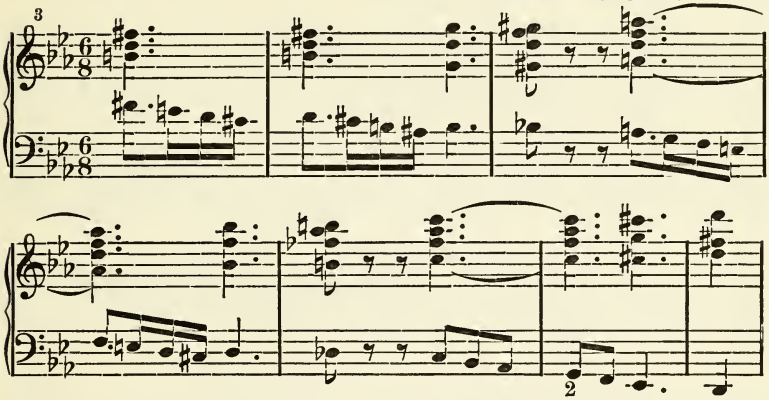


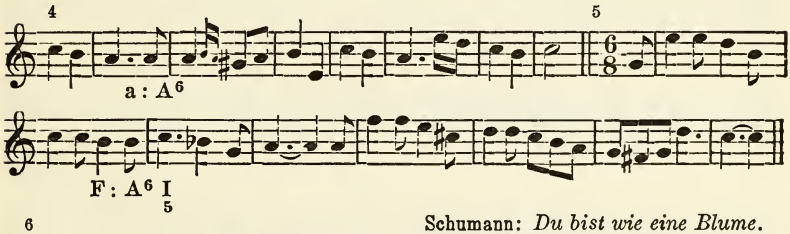
INCLUDING OR BY MEANS OF THE AUGMENTED-SIXTH CHORD.

Ex. 303

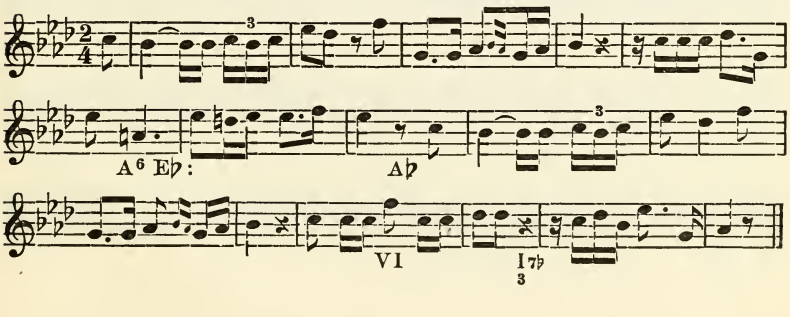


Brahms: *Symphony in C.*

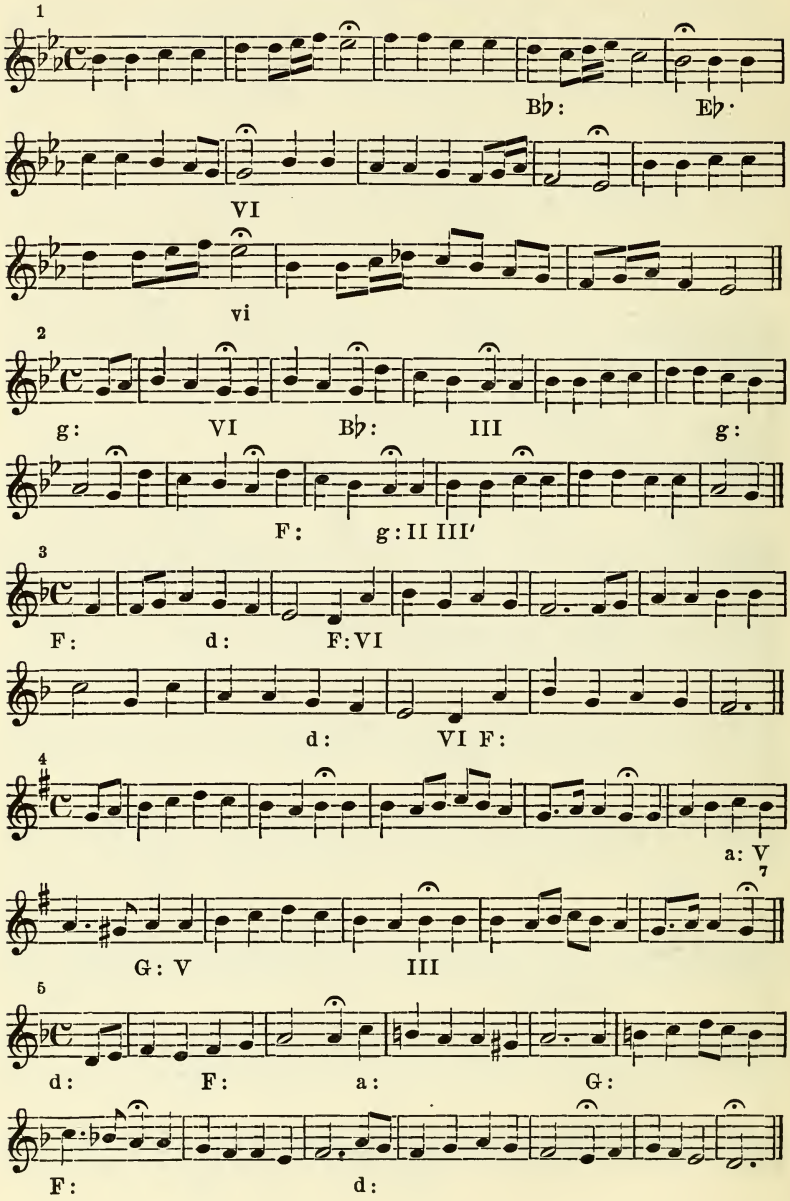


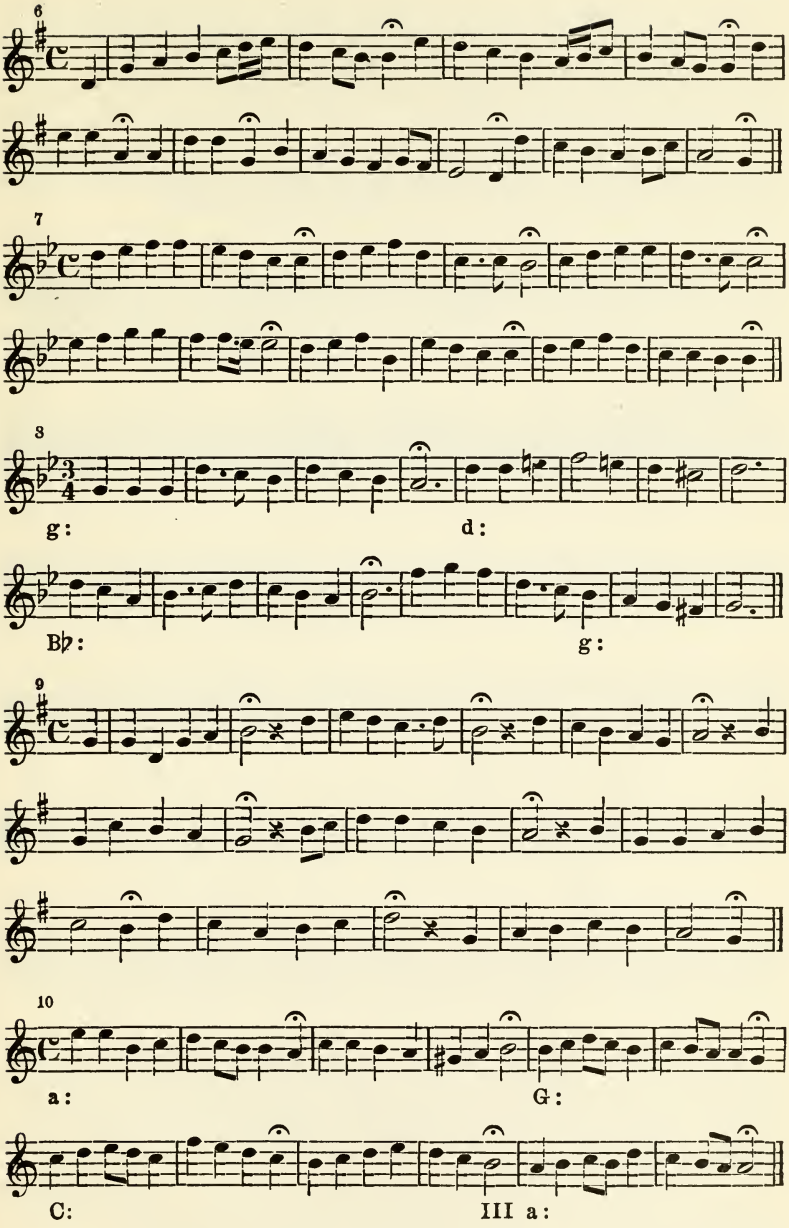


Schumann: *Du bist wie eine Blume.*



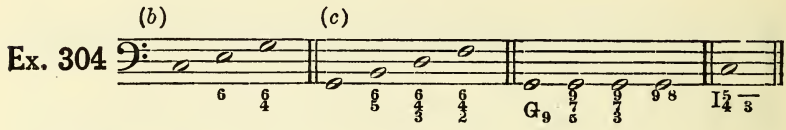
Bach Chorales.

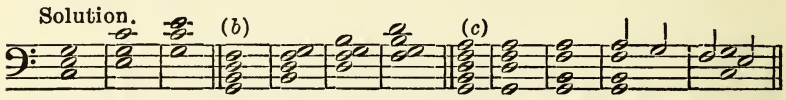


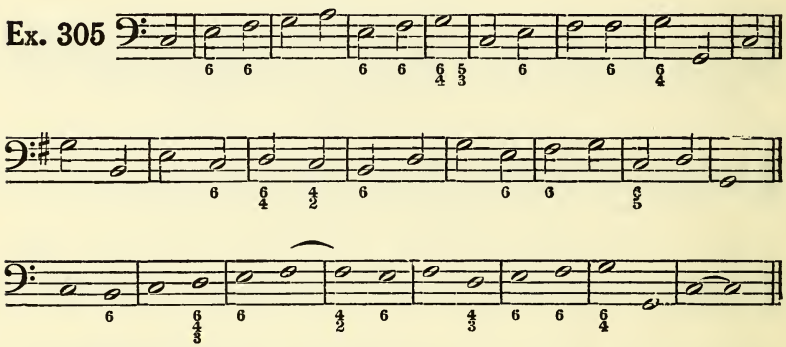

6
7
8
g:
d:
B♭:
g:
9
10
a:
G:
C:
III a:

212. Although the use of figured bass has been discontinued by the most progressive teachers, and there is never an occasion to use it in the practice of real music, it is still seen in some text-books. If one cares to become familiar with it, work that has been done, or some of the excerpts might be figured.

From the solution given at Ex. 304, one will see that the figures indicate the number of degrees above the bass. The basses at Ex. 305 may be harmonized in four parts, employing both clefs.







Because it can be done so mechanically, without hearing, feeling, or the exercise of music sense, this method has hampered musical progress more than any one factor in the history of music education. Those who have succeeded in composition did so in spite of it, rather than because of it.

One thing is certain,—modern music cannot be understood or written on the narrow, restricted systems of the past. After all, follow Huneker's advice,—"For the rest trust to God and Bach."

W. B. C.

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